

109TH CONGRESS  
1ST SESSION

# H. R. 242

To authorize appropriations to the Department of Transportation for surface transportation research and development, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JANUARY 6, 2005

Mr. EHLERS introduced the following bill; which was referred to the Committee on Science, and in addition to the Committee on Transportation and Infrastructure, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To authorize appropriations to the Department of Transportation for surface transportation research and development, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4       (a) SHORT TITLE.—This Act may be cited as the  
5       “Surface Transportation Research and Development Act  
6       of 2005”.

7       (b) TABLE OF CONTENTS.—The table of contents for  
8       this Act is as follows:

- Sec. 1. Short title; table of contents.  
 Sec. 2. Findings.

## TITLE I—SURFACE TRANSPORTATION RESEARCH AND DEVELOPMENT

- Sec. 101. Authorization of appropriations.  
 Sec. 102. Goals, principles, and processes.  
 Sec. 103. Transportation research and development strategic planning.  
 Sec. 104. Surface transportation research and development.  
 Sec. 105. Technology deployment.  
 Sec. 106. Training and education.  
 Sec. 107. Bureau of Transportation Statistics.  
 Sec. 108. State planning and research.  
 Sec. 109. Future Strategic Highway Research Program.  
 Sec. 110. University transportation research.  
 Sec. 111. Intelligent Transportation Systems.

## TITLE II—MISCELLANEOUS

- Sec. 201. Authorization of appropriations.  
 Sec. 202. Innovative Practices and Technologies Demonstration and Deployment Program.  
 Sec. 203. National Transit Institute.  
 Sec. 204. Human resource programs.  
 Sec. 205. Highway safety research and development.  
 Sec. 206. Motor carrier research and development program.  
 Sec. 207. Transportation, energy, and environment.  
 Sec. 208. National cooperative freight transportation research and development program.  
 Sec. 209. Next Generation National Transportation Policy Study Commission.  
 Sec. 210. Real-time system management information program.  
 Sec. 211. Planning capacity building initiative.

### 1 **SEC. 2. FINDINGS.**

2       The Congress finds the following:

3           (1) Research and development are critical to de-  
 4       veloping and maintaining a transportation system  
 5       that meets the goals of safety, mobility, economic vi-  
 6       tality, efficiency, equity, and environmental protec-  
 7       tion.

8           (2) Federally sponsored surface transportation  
 9       research and development has produced many suc-  
 10      cesses. The development of rumble strips has in-

1        creased safety; research on materials has increased  
2        the lifespan of pavements, saving money and reduc-  
3        ing the disruption caused by construction; and Geo-  
4        graphic Information Systems have improved the  
5        management and efficiency of transit fleets.

6            (3) Despite these important successes, the Fed-  
7        eral surface transportation research and develop-  
8        ment investment represents less than one percent of  
9        overall government spending on surface transpor-  
10       tation.

11           (4) While Congress increased funding for over-  
12        all transportation programs by about 40 percent in  
13        the Transportation Equity Act for the 21st Century,  
14        funding for transportation research and development  
15        remained relatively flat.

16           (5) The Federal investment in research and de-  
17        velopment should be balanced between short-term  
18        applied and long-term fundamental research and de-  
19        velopment. The investment should also cover a wide  
20        range of research areas, including research on mate-  
21        rials and construction, research on operations, re-  
22        search on transportation trends and human factors,  
23        and research addressing the institutional barriers to  
24        deployment of new technologies.

1           (6) Therefore, Congress finds that it is in the  
 2           United States interest to increase the Federal in-  
 3           vestment in transportation research and develop-  
 4           ment, and to conduct research in critical research  
 5           gaps, in order to ensure that the transportation sys-  
 6           tem meets the goals of safety, mobility, economic vi-  
 7           tality, efficiency, equity, and environmental protec-  
 8           tion.

9       **TITLE I—SURFACE TRANSPOR-**  
 10       **TATION RESEARCH AND DE-**  
 11       **VELOPMENT**

12       **SEC. 101. AUTHORIZATION OF APPROPRIATIONS.**

13           (a) IN GENERAL.—There are authorized to be appro-  
 14           priated for each of fiscal years 2005 through 2010, to  
 15           carry out this title and the amendments made by this title  
 16           (other than sections 108 and 109) and other programs  
 17           described in subsection (b), the greater of—

18                   (1) 1.08 percent of the amounts made available  
 19                   in each fiscal year from the Highway Trust Fund;  
 20                   or

21                   (2) \$500,000,000.

22           (b) PROGRAMS.—Of the amount authorized to be ap-  
 23           propriated under subsection (a)—

24                   (1) 50 percent shall be for carrying out sections  
 25                   502, 503, 506, 507, 508, and 510 of title 23, United

1 States Code, section 5113(b) of the Transportation  
2 Equity Act for the 21st Century, and section 104(d)  
3 of this Act, for each of fiscal years 2005 through  
4 2010, of which—

5 (A) not less than \$20,000,000 shall be for  
6 the Surface Transportation Environment and  
7 Planning Cooperative Research Program under  
8 section 507 of title 23, United States Code, for  
9 each of those fiscal years;

10 (B) not less than \$10,000,000 shall be for  
11 advanced exploratory research under section  
12 502(d) of title 23, United States Code, for each  
13 of those fiscal years; and

14 (C) not less than \$5,000,000 shall be for  
15 the National Multimodal Trends Policy Re-  
16 search Program under section 104(d) of this  
17 Act for each of those fiscal years;

18 (2) 6.5 percent shall be for carrying out section  
19 504 of title 23, United States Code, for each of fis-  
20 cal years 2005 through 2010;

21 (3) 7.5 percent shall be for carrying out section  
22 111 of title 49, United States Code, for each of fis-  
23 cal years 2005 through 2010, of which not less than  
24 \$5,000,000 shall be for research and development

1 grants under subsection (i)(2) of such section for  
2 each of fiscal years 2005 through 2010;

3 (4) 11.5 percent shall be for carrying out sec-  
4 tion 5505 of title 49, United States Code, for each  
5 of fiscal years 2005 through 2010; and

6 (5) 24.5 percent shall be for carrying out the  
7 Intelligent Transportation Systems Act of 2005 for  
8 each of fiscal years 2005 through 2010.

9 **SEC. 102. GOALS, PRINCIPLES, AND PROCESSES.**

10 (a) GOALS.—The Federal Government shall support  
11 surface transportation research and development to help  
12 achieve the goals established for the surface transpor-  
13 tation system as set forth in the Transportation Equity  
14 Act for the 21st Century, including supporting economic  
15 vitality, improving safety and security, increasing mobility,  
16 protecting and enhancing the environment, improving in-  
17 tegration between modes of transportation, promoting effi-  
18 ciency, and emphasizing the preservation of the existing  
19 transportation system.

20 (b) BASIC PRINCIPLES GOVERNING RESEARCH AND  
21 DEVELOPMENT.—

22 (1) COVERAGE.—Surface transportation re-  
23 search and development shall include all activities  
24 leading to technology development and transfer, as  
25 well as the introduction of new and innovative ideas,

1 practices, and approaches, through such mechanisms  
2 as field applications, education and training, and  
3 technical support.

4 (2) FEDERAL RESPONSIBILITY.—The Federal  
5 Government shall fund and conduct surface trans-  
6 portation research and development and technology  
7 transfer activities that—

8 (A) are of national significance;

9 (B) support research and development in  
10 which there is a clear public benefit, and pri-  
11 vate sector investment is less than optimal due  
12 to market failure;

13 (C) support research and development that  
14 the Secretary determines is critical that is not  
15 otherwise being conducted by the public or pri-  
16 vate sector; or

17 (D) support a Federal stewardship role in  
18 ensuring that State and local governments use  
19 national resources efficiently.

20 (3) ROLE.—Consistent with these Federal re-  
21 sponsibilities, the Secretary of Transportation  
22 shall—

23 (A) conduct research and development;

24 (B) support and facilitate research and de-  
25 velopment and technology transfer activities by

1 State highway agencies, metropolitan planning  
2 organizations, and local governments;

3 (C) share results of completed research  
4 and development; and

5 (D) support and facilitate technology and  
6 innovation deployment.

7 (4) PROGRAM CONTENT.—The surface trans-  
8 portation research and development program shall  
9 include—

10 (A) fundamental, long-term research;

11 (B) research and development aimed at  
12 significant research gaps, and emerging issues  
13 with national implications; and

14 (C) research related to policy and plan-  
15 ning.

16 (c) PROCESSES.—

17 (1) STAKEHOLDER INPUT.—Federal surface  
18 transportation research and development activities  
19 shall address the needs of stakeholders. Stakeholders  
20 include States, metropolitan planning organizations,  
21 local governments, the private sector, researchers,  
22 research sponsors, and other affected parties, includ-  
23 ing public interest groups.

24 (2) COMPETITION AND PEER REVIEW.—Except  
25 as otherwise provided in this Act, the Secretary shall



1       award all grants, contracts, and cooperative agree-  
 2       ments for research and development under this Act  
 3       based on open competition and peer review of pro-  
 4       posals.

5           (3) PERFORMANCE REVIEW AND EVALUA-  
 6       TION.—To the maximum extent practicable, all sur-  
 7       face transportation research and development  
 8       projects shall include a component of performance  
 9       measurement and evaluation. Performance measures  
 10      shall be established during the proposal stage of a  
 11      research and development project and shall, to the  
 12      maximum extent possible, be outcome-based. All  
 13      evaluations shall be made readily available to the  
 14      public.

15 **SEC. 103. TRANSPORTATION RESEARCH AND DEVELOP-**  
 16 **MENT STRATEGIC PLANNING.**

17       (a) AMENDMENT.—Section 508 of title 23, United  
 18      States Code, is amended to read as follows:

19 **“§ 508. Transportation research and development**  
 20 **strategic planning**

21       “(a) IN GENERAL.—

22           “(1) DEVELOPMENT.—Not later than 1 year  
 23      after the date of enactment of the Surface Transpor-  
 24      tation Research and Development Act of 2005, the  
 25      Secretary shall develop a 5-year transportation re-

1 search and development strategic plan to guide Fed-  
2 eral transportation research and development activi-  
3 ties. This plan shall be consistent with section 306  
4 of title 5, sections 1115 and 1116 of title 31, and  
5 any other research and development plan within the  
6 Department of Transportation.

7 “(2) CONTENTS.—The strategic plan developed  
8 under paragraph (1) shall—

9 “(A) describe the primary purposes of the  
10 transportation research and development pro-  
11 gram, which shall include, at a minimum—

12 “(i) reducing congestion and improv-  
13 ing mobility;

14 “(ii) promoting safety;

15 “(iii) promoting security;

16 “(iv) protecting and enhancing the en-  
17 vironment;

18 “(v) preserving the existing transpor-  
19 tation system; and

20 “(vi) improving the durability and ex-  
21 tending the life of transportation infra-  
22 structure;

23 “(B) for each purpose, list the primary re-  
24 search and development topics that the Depart-  
25 ment intends to pursue to accomplish that pur-

pose, which may include the fundamental research in the physical and natural sciences, applied research, technology development, and social science research intended for each topic; and

“(C) for each research and development topic, describe—

“(i) the anticipated annual funding levels for the period covered by the strategic plan; and

“(ii) the additional information the Department expects to gain at the end of the period covered by the strategic plan as a result of the research and development in that topic area.

“(3) CONSIDERATIONS.—In developing the strategic plan, the Secretary shall ensure that the plan—

“(A) reflects input from a wide range of stakeholders;

“(B) includes and integrates the research and development programs of all the Department’s operating administrations, including aviation, transit, rail, and maritime; and

1           “(C) takes into account how research and  
2           development by other Federal, State, private  
3           sector, and not-for-profit institutions contrib-  
4           utes to the achievement of the purposes identi-  
5           fied under paragraph (2)(A), and avoids unnec-  
6           essary duplication with these efforts.

7           “(4) PERFORMANCE PLANS AND REPORTS.—In  
8           reports submitted under sections 1115 and 1116 of  
9           title 31, the Secretary shall include—

10           “(A) a summary of the Federal transpor-  
11           tation research and development activities for  
12           the previous fiscal year in each topic area;

13           “(B) the amount of funding spent in each  
14           topic area;

15           “(C) a description of the extent to which  
16           the research and development is meeting the ex-  
17           pectations set forth in paragraph (2)(C)(ii); and

18           “(D) any amendments to the strategic  
19           plan.

20           “(b) ANNUAL REPORT.—The Secretary shall submit  
21           to Congress an annual report, along with the President’s  
22           annual budget request, describing the amount spent in the  
23           last completed fiscal year on transportation research and  
24           development and the amount proposed in the current  
25           budget for transportation research and development.

1       “(c) NATIONAL RESEARCH COUNCIL REVIEW.—The  
 2 Secretary shall enter into an agreement for the review by  
 3 the National Research Council of the details of each—

4               “(1) strategic plan under section 508;

5               “(2) performance plan required under section  
 6 1115 of title 31; and

7               “(3) program performance report required  
 8 under section 1116 of title 31,  
 9 with respect to transportation research and develop-  
 10 ment.”.

11       (b) CONFORMING AMENDMENT.—The analysis for  
 12 chapter 5 of title 23, United States Code, is amended by  
 13 striking the item related to section 508 and inserting the  
 14 following:

“508. Transportation research and development strategic planning.”.

15 **SEC. 104. SURFACE TRANSPORTATION RESEARCH AND DE-**  
 16 **VELOPMENT.**

17       (a) SURFACE TRANSPORTATION RESEARCH AND DE-  
 18 VELOPMENT.—Section 502 of title 23, United States  
 19 Code, is amended—

20               (1) in subsection (a)—

21                       (A) in paragraph (1), by striking “may”  
 22 and inserting “shall”; and

23                       (B) by striking subparagraphs (B) and (C)  
 24 of paragraph (1) and inserting the following:

1           “(B) all phases of transportation planning  
2           and development (including construction, trans-  
3           portation system management and operation,  
4           modernization, development, design, mainte-  
5           nance, safety, data collection, performance anal-  
6           ysis, multimodal assessment, financing, demand  
7           forecasting, and traffic conditions);

8           “(C) institutional arrangements and sup-  
9           port; and

10           “(D) the effect of State laws on the activi-  
11           ties described in subparagraphs (A), (B), and  
12           (C).”;

13           (2) by amending subsection (c) to read as fol-  
14           lows:

15           “(c) CONTENTS OF RESEARCH AND DEVELOPMENT  
16           PROGRAM.—The Secretary shall include in surface trans-  
17           portation research, development, and technology transfer  
18           programs carried out under this title coordinated activities  
19           in the following areas:

20           “(1) Research and development on materials  
21           and structures to improve the durability of surface  
22           transportation infrastructure and extend the life of  
23           pavements and bridges, including, as appropriate—

24           “(A) development of nondestructive evalua-  
25           tion equipment for use with existing infrastruc-

1           ture facilities and with next-generation infra-  
2           structure facilities that use advanced materials;

3           “(B) standardized estimates, developed in  
4           conjunction with the National Institute of  
5           Standards and Technology and other appro-  
6           priate organizations, of useful life under various  
7           conditions for advanced materials of use in sur-  
8           face transportation;

9           “(C) research on the effects of climate con-  
10          ditions (such as freezing, thawing, and precipi-  
11          tation) on highway construction materials, and  
12          development of materials that can withstand cli-  
13          matic conditions; and

14          “(D) economic highway geometrics, struc-  
15          tures, and desirable weight and size standards  
16          for vehicles using the public highways and the  
17          feasibility of uniformity in State regulations  
18          with respect to such standards.

19          “(2) Research and development on the oper-  
20          ation and management of the surface transportation  
21          system to improve efficiency, productivity, and safe-  
22          ty, including, as appropriate—

23                 “(A) technologies and practices that reduce  
24                 costs and minimize disruptions associated with  
25                 the construction, rehabilitation, and mainte-

1 nance of surface transportation systems, includ-  
2 ing responses to natural disasters;

3 “(B) research and system analysis to facili-  
4 tate and integrate bicycle and pedestrian travel  
5 in the transportation system, including within  
6 National Parks and in areas adjacent to Na-  
7 tional Park land;

8 “(C) development of dynamic simulation  
9 models of surface transportation systems for—

10 “(i) predicting capacity, safety, and  
11 infrastructure durability problems;

12 “(ii) evaluating the extent to which  
13 projects are likely to achieve their stated  
14 objectives; and

15 “(iii) testing the strengths and weak-  
16 nesses of proposed revisions to surface  
17 transportation operations and management  
18 programs;

19 “(D) improvement of life cycle cost anal-  
20 ysis, including—

21 “(i) establishing the appropriate anal-  
22 ysis period and discount rates;

23 “(ii) learning how to value and prop-  
24 erly consider use costs;



1 “(iii) determining tradeoffs between  
2 reconstruction and rehabilitation; and

3 “(iv) establishing methodologies for  
4 balancing higher initial costs of new tech-  
5 nologies and improved or advanced mate-  
6 rials against lower maintenance costs;

7 “(E) research on the effects of climatic  
8 conditions (such as freezing, thawing, and pre-  
9 cipitation) on the costs of highway construction  
10 materials and maintenance;

11 “(F) research, development, and tech-  
12 nology transfer related to asset management;  
13 and

14 “(G) evaluation of traffic calming meas-  
15 ures that promote community preservation,  
16 transportation mode choice, and safety.

17 “(3) Research, development, and technology  
18 transfer to improve safety.

19 “(4) Research and development to support the  
20 evaluation of how the surface transportation system  
21 and individual surface transportation projects meet  
22 the goals of the surface transportation system stated  
23 in section 102(a) of the Surface Transportation Re-  
24 search and Development Act of 2005, including, as  
25 appropriate—

“(A) development, use, and dissemination of indicators, including appropriate computer programs for collecting and analyzing data on the status of infrastructure facilities, to measure the performance of the surface transportation systems of the United States, including productivity, efficiency, energy use, air quality, congestion, safety, maintenance, and other factors that reflect system performance; and

“(B) research on, and dissemination of recommendations and best practices aimed at addressing, nontechnical barriers to technology deployment (such as fragmented local authority, rigid procurement rules, and privacy and liability considerations).

“(5) To assess how the surface transportation system affects and is affected by social systems, including, as appropriate—

“(A) research aimed at understanding how emerging trends (including demographic, economic, and social trends) will affect surface transportation usage and needs;

“(B) research on how land use affects and is affected by surface transportation investments; and

1           “(C) telecommuting and the linkages be-  
2           tween transportation, information technology,  
3           and community development, and the impact of  
4           technological change and economic restruc-  
5           turing on travel demand.

6           “(6) Environmental research and development,  
7           including research described in the Transportation  
8           Research Board Special Report 268, entitled ‘Sur-  
9           face Transportation Environmental Research: A  
10          Long-Term Strategy’ published in 2002.

11          “(7) Exploratory advanced research in any of  
12          the preceding areas.

13          “(8) Any other surface transportation research  
14          and development topics that the Secretary deter-  
15          mines, in accordance with the strategic planning  
16          process under section 508, to be critical.”;

17          (3) in subsection (d)—

18                 (A) in paragraph (1), by inserting “explor-  
19                 atory” after “shall establish an”; and

20                 (B) by striking paragraph (2) and insert-  
21                 ing the following new paragraphs:

22                 “(2) PURPOSE.—The purpose of the research  
23                 program under this subsection shall be to achieve  
24                 breakthroughs in transportation research. Explor-  
25                 atory advanced research should have a broader ob-

1 jective, longer time frame, multidisciplinary nature,  
2 and have both a higher risk and a higher potential  
3 payoff than for problem-solving research.

4 “(3) WORKSHOP.—The Secretary shall convene  
5 a workshop with appropriate researchers and policy-  
6 makers from Federal and State agencies, as well as  
7 academic researchers. The purpose of the workshop  
8 shall be to determine priority areas of exploratory  
9 advanced research and to identify the best way to  
10 accomplish this research (such as through federally  
11 funded research and development centers or aca-  
12 demic researchers). The workshop shall include a di-  
13 verse group of stakeholders. The Secretary shall  
14 make the results of the workshop widely available to  
15 the public. The workshop shall be held within 6  
16 months after the date of the enactment of this para-  
17 graph.

18 “(4) GRANT PROGRAM.—The Secretary may ad-  
19 minister a competitive, peer-reviewed grant program  
20 to support exploratory advanced research.

21 “(5) REPORT.—The President’s annual budget  
22 request to the Congress shall indicate the amount of  
23 funding used in the previous fiscal year, and pro-  
24 posed for the next fiscal year, to support exploratory  
25 advanced research under this subsection, including

1 the amount used to support extramural research  
2 grants in exploratory advanced research under this  
3 subsection.”;

4 (4) in subsection (e)(1), by striking “(105  
5 Stat.” and all that follows through “performance  
6 program” and inserting “and the Transportation  
7 Equity Act for the 21st Century”;

8 (5) by redesignating subsections (f) and (g) as  
9 subsections (g) and (h), respectively, and by insert-  
10 ing after subsection (e) the following new subsection:

11 “(f) LONG-TERM BRIDGE PERFORMANCE PRO-  
12 GRAM.—

13 “(1) AUTHORITY.—The Secretary shall estab-  
14 lish a 20-year, long-term bridge performance pro-  
15 gram.

16 “(2) GRANTS, COOPERATIVE AGREEMENTS, AND  
17 CONTRACTS.—Under the program, the Secretary  
18 shall make grants and enter into cooperative agree-  
19 ments and contracts to—

20 “(A) monitor, material-test, and evaluate  
21 test bridges;

22 “(B) analyze the data obtained in carrying  
23 out subparagraph (A); and

1           “(C) prepare products to fulfill program  
2 objectives and meet future bridge technology  
3 needs.”;

4           (6) in subsection (h)(2), as so redesignated by  
5 paragraph (5) of this subsection, by striking “bian-  
6 nual reports” and all that follows through “21st  
7 Century” and inserting “previous reports under this  
8 subsection”; and

9           (7) by adding at the end the following new sub-  
10 section:

11       “(i) TURNER-FAIRBANK HIGHWAY RESEARCH CEN-  
12 TER.—

13           “(1) IN GENERAL.—The Secretary shall operate  
14 in the Federal Highway Administration a Turner-  
15 Fairbank Highway Research Center.

16           “(2) USES OF THE CENTER.—The Turner-  
17 Fairbank Highway Research Center shall support  
18 the—

19           “(A) conduct of highway research and de-  
20 velopment related to new highway technology;

21           “(B) development of understandings, tools,  
22 and techniques that provide solutions to com-  
23 plex technical problems through the develop-  
24 ment of economical and environmentally sen-  
25 sitive designs, efficient and quality controlled

1 construction practices, and durable materials;  
2 and

3 “(C) development of innovative highway  
4 products and practices.”.

5 (b) GEOSPATIAL INFORMATION SYSTEMS.—Section  
6 5113 of the Transportation Equity Act for the 21st Cen-  
7 tury (23 U.S.C. 502 note) is amended by amending sub-  
8 section (b) to read as follows:

9 “(b) PROGRAM.—

10 “(1) NATIONAL POLICY.—The Secretary shall  
11 establish and maintain a national policy for the use  
12 of commercial remote sensing products and  
13 geospatial information technologies in national  
14 transportation infrastructure development and con-  
15 struction.

16 “(2) POLICY IMPLEMENTATION.—The Sec-  
17 retary shall develop new applications of commercial  
18 remote sensing products and geospatial information  
19 technologies for the implementation of the national  
20 policy established and maintained under paragraph  
21 (1).”.

22 (c) ENVIRONMENT AND PLANNING.—

23 (1) AMENDMENT.—Section 507 of title 23,  
24 United States Code, is amended to read as follows:

1 **“§ 507. Surface Transportation Environment and**  
2 **Planning Cooperative Research Program**

3 “(a) IN GENERAL.—

4 “(1) ESTABLISHMENT.—The Secretary shall es-  
5 tablish and support a collaborative, public-private,  
6 multimodal surface transportation environment and  
7 planning cooperative research and development pro-  
8 gram.

9 “(2) PROGRAM.—The program established  
10 under paragraph (1) shall solely carry out research  
11 and development called for in the Transportation  
12 Research Board Special Report 268, entitled ‘Sur-  
13 face Transportation Environmental Research: A  
14 Long-Term Strategy’, published in 2002, which in-  
15 cluded the following research and development areas:

16 “(A) Human Health.

17 “(B) Ecology and Natural Systems.

18 “(C) Environmental and Social Justice.

19 “(D) Emerging Technologies.

20 “(E) Land Use.

21 “(F) Planning and Performance Measures.

22 “(b) ADMINISTRATION.—

23 “(1) AGREEMENT.—The Secretary shall enter  
24 into an arrangement with the National Research  
25 Council, or another nonprofit research organization,



1       such as the Health Effects Institute, to administer  
2       the program established under subsection (a)(1).

3               “(2) DISSEMINATION OF RESEARCH AND DE-  
4       VELOPMENT FINDINGS.—The organization described  
5       in paragraph (1) and the Department of Transpor-  
6       tation shall proactively disseminate research and de-  
7       velopment findings under this section to researchers,  
8       practitioners, and decisionmakers.

9       “(c) ADVISORY BOARD.—

10              “(1) ESTABLISHMENT.—The organization de-  
11       scribed in subsection (b)(1) shall establish an advi-  
12       sory board.

13              “(2) MEMBERSHIP.—The advisory board shall  
14       be balanced, and shall include—

15                      “(A) representatives from public interest  
16       groups representing the environment;

17                      “(B) representatives of State, regional, and  
18       local transportation agencies, including metro-  
19       politan planning organizations and transit agen-  
20       cies;

21                      “(C) representatives of State environ-  
22       mental agencies;

23                      “(D) transportation and environmental sci-  
24       entists and engineers; and

1 “(E) representatives of Federal agencies,  
2 including the Department of Transportation,  
3 the Environmental Protection Agency, and the  
4 National Science Foundation.

5 “(3) RESPONSIBILITIES.—The advisory board  
6 shall—

7 “(A) develop an annual research and devel-  
8 opment agenda to carry out research and devel-  
9 opment activities described in subsection (a)(2);

10 “(B) solicit research proposals to carry out  
11 the research and development agenda, and over-  
12 see peer review of proposals;

13 “(C) develop project selection criteria  
14 through an open and public consultation proc-  
15 ess with stakeholders; and

16 “(D) select projects for funding.

17 “(4) CRITERIA.—In developing criteria, the ad-  
18 visory board shall give priority to proposals that—

19 “(A) are designed to develop fundamental  
20 knowledge;

21 “(B) are interdisciplinary and involve part-  
22 nerships; and

23 “(C) include significant matching funds.

24 “(d) PROJECT FUNDING.—In addition to using funds  
25 authorized for this section, the organization described in

1 subsection (b)(1) is encouraged to seek and accept addi-  
 2 tional funding sources from public and private entities.

3 “(e) ANNUAL REPORT.—The organization described  
 4 in subsection (b)(1) shall prepare and transmit to the Sec-  
 5 retary and the Congress an annual report that includes  
 6 a project summary for every project funded under this sec-  
 7 tion. Each summary shall describe the project, summarize  
 8 its status and funding levels, and identify sources of fund-  
 9 ing.”.

10 (2) CONFORMING AMENDMENT.—The analysis  
 11 for chapter 5 of title 23, United States Code, is  
 12 amended by striking the item related to section 507  
 13 and inserting the following:

“507. Surface transportation environment and planning cooperative research  
 program.”.

14 (d) NATIONAL MULTIMODAL TRENDS POLICY RE-  
 15 SEARCH AND DEVELOPMENT PROGRAM.—

16 (1) IN GENERAL.—The Secretary shall carry  
 17 out a National Multimodal Trends Policy Research  
 18 and Development Program that systematically ad-  
 19 dresses critical short-term, medium-term, and long-  
 20 term social science issues affecting and affected by  
 21 the transportation system.

22 (2) CONTENTS.—The program to be carried out  
 23 under this subsection shall include research and de-  
 24 velopment on—

1           (A) how, and the extent to which, the over-  
2           all transportation system is meeting the goals  
3           set forth in the Transportation Equity Act for  
4           the 21st Century, and how to improve evalua-  
5           tion methodologies and performance measures;

6           (B) the development of policy analysis  
7           tools and methods for use by decisionmakers;

8           (C) the critical factors and major trends  
9           affecting the success and performance of the  
10          Nation's transportation system, as well as how  
11          such information can be incorporated into na-  
12          tional, State, and local decisionmaking;

13          (D) economic, demographic, and social  
14          trends that are affecting and are affected by  
15          the transportation system, including such topics  
16          as—

17               (i) economic trends, including inter-  
18               national trade and its effects on the trans-  
19               portation of people and goods, rapidly  
20               changing information technology, the  
21               changing nature of metropolitan econo-  
22               mies, diversification of employment sites,  
23               and innovations in goods movement;

1 (ii) demographic trends, changing res-  
2 idential patterns, and the aging of the pop-  
3 ulation; and

4 (iii) social trends, including income  
5 disparity, access of underserved popu-  
6 lations to jobs, services and health care, in-  
7 cluding the needs of low-income, minority,  
8 and transit-dependent populations in urban  
9 and rural areas, the needs of rural popu-  
10 lations, and the effects of new technologies  
11 on driver behavior;

12 (E) how institutional factors affect the de-  
13 velopment and successful deployment of new  
14 technologies; and

15 (F) other critical issues identified by the  
16 Advisory Board established under paragraph  
17 (4).

18 (3) ESTABLISHMENT.—The Secretary shall  
19 enter into an arrangement with the National Re-  
20 search Council to establish the advisory board under  
21 paragraph (4) and to administer the program.

22 (4) ADVISORY BOARD.—

23 (A) MEMBERSHIP.—A majority of mem-  
24 bers of the advisory board shall be experts in a  
25 broad array of social science fields. Additional

1 members of the advisory board shall be bal-  
2 anced among representatives of Federal, State,  
3 and local transportation agencies, other agen-  
4 cies with appropriate expertise, metropolitan  
5 planning organizations, transit operating agen-  
6 cies, and environmental and other nonprofit or-  
7 ganizations, including representatives of com-  
8 munity-based orgainzations.

9 (B) RESPONSIBILITIES.—The advisory  
10 board shall—

11 (i) develop a detailed research and de-  
12 velopment agenda, which shall serve as the  
13 basis of the annual project solicitation;

14 (ii) annually solicit project proposals,  
15 through open competition and peer review  
16 of research and development proposals;  
17 and

18 (iii) develop project selection criteria,  
19 through an open and public consultation  
20 process with stakeholders.

21 (5) DISSEMINATION OF RESEARCH AND DEVEL-  
22 OPMENT FINDINGS.—The National Research Council  
23 and the Department of Transportation shall dissemi-  
24 nate research and development findings under this

1 subsection to researchers, practitioners, and deci-  
2 sionmakers.

3 (e) ROAD WEATHER RESEARCH AND DEVELOPMENT  
4 PROGRAM.—

5 (1) ESTABLISHMENT.—The Secretary shall es-  
6 tablish a road weather research and development  
7 program to—

8 (A) maximize use of available road weather  
9 information and technologies;

10 (B) expand road weather research and de-  
11 velopment efforts to enhance roadway safety,  
12 capacity, and efficiency while minimizing envi-  
13 ronmental impacts; and

14 (C) promote technology transfer of effec-  
15 tive road weather scientific and technological  
16 advances.

17 (2) STAKEHOLDER INPUT.—In carrying out  
18 this subsection, the Secretary shall consult with the  
19 National Oceanic and Atmospheric Administration,  
20 the National Science Foundation, the American As-  
21 sociation of State Highway and Transportation Offi-  
22 cials, nonprofit organizations, and the private sector.

23 (3) CONTENTS.—The program established  
24 under this subsection shall solely carry out research  
25 and development called for in the National Research

1 Council’s report entitled “A Research Agenda for  
2 Improving Road Weather Services”. Such research  
3 and development includes—

4 (A) integrating existing observational net-  
5 works and data management systems for road  
6 weather applications;

7 (B) improving weather modeling capabili-  
8 ties and forecast tools, such as the road surface  
9 and atmospheric interface;

10 (C) enhancing mechanisms for commu-  
11 nicating road weather information to users,  
12 such as transportation officials and the public;  
13 and

14 (D) integrating road weather technologies  
15 into an information infrastructure.

16 (4) ACTIVITIES.—In carrying out this sub-  
17 section, the Secretary shall—

18 (A) enable efficient technology transfer;

19 (B) improve education and training of road  
20 weather information users, such as State and  
21 local transportation officials and private sector  
22 transportation contractors; and

23 (C) coordinate with transportation weather  
24 research programs in other modes, such as  
25 aviation.



1           (5) FUNDING.—In awarding funds under this  
 2       subsection, the Secretary shall give preference to ap-  
 3       plications with significant matching funds from non-  
 4       Federal sources. From the amounts authorized to be  
 5       appropriated under section 101(b)(1), there shall be  
 6       available \$5,000,000 for carrying out this subsection  
 7       for each of fiscal years 2005 through 2010.

8   **SEC. 105. TECHNOLOGY DEPLOYMENT.**

9       (a) TECHNOLOGY DEPLOYMENT PROGRAM.—Section  
 10   503(a) of title 23, United States Code, is amended—

11           (1) in the subsection heading, by striking “Ini-  
 12       tiatives and Partnerships”;

13           (2) by striking paragraph (1) and inserting the  
 14       following:

15           “(1) ESTABLISHMENT.—The Secretary shall  
 16       develop and administer a national technology deploy-  
 17       ment program.”;

18           (3) by striking paragraph (7) and inserting the  
 19       following:

20           “(7) GRANTS, COOPERATIVE AGREEMENTS, AND  
 21       CONTRACTS.—

22           “(A) IN GENERAL.—Under the program,  
 23       the Secretary shall make grants to, and enter  
 24       into cooperative agreements and contracts with,  
 25       States, other Federal agencies, universities and

1 colleges, private sector entities, and nonprofit  
2 organizations to pay the Federal share of the  
3 cost of research, development, and technology  
4 transfer concerning innovative materials.

5 “(B) APPLICATIONS.—To receive a grant  
6 under this subsection, an entity described in  
7 subparagraph (A) shall submit an application to  
8 the Secretary. The application shall be in such  
9 form and contain such information as the Sec-  
10 retary may require. The Secretary shall select  
11 and approve the applications based on open  
12 competition and peer review, and on whether  
13 the project that is the subject of the grant  
14 serves the purpose of the program described in  
15 paragraph (2).”;

16 (4) by striking paragraph (8);

17 (5) by redesignating paragraph (9) as para-  
18 graph (10); and

19 (6) by inserting after paragraph (7) the fol-  
20 lowing:

21 “(8) TECHNOLOGY AND INFORMATION TRANS-  
22 FER.—The Secretary shall ensure that the informa-  
23 tion and technology resulting from research and de-  
24 velopment conducted under paragraph (3) is made  
25 available to State and local transportation depart-

1       ments and other interested parties as specified by  
2       the Secretary.

3               “(9) FEDERAL SHARE.—The Federal share of  
4       the cost of a project under this section shall be de-  
5       termined by the Secretary.”.

6       (b) INNOVATIVE BRIDGE RESEARCH AND DEPLOY-  
7       MENT PROGRAM.—

8               (1) IN GENERAL.—Section 503(b) of title 23,  
9       United States Code, is amended by striking para-  
10      graph (1) and inserting:

11              “(1) IN GENERAL.—The Secretary shall estab-  
12      lish and carry out a program to promote, dem-  
13      onstrate, evaluate, and document the application of  
14      innovative designs, materials and construction meth-  
15      ods in the construction, repair, and rehabilitation of  
16      bridges and other highway structures.”.

17              (2) GOALS.—Section 503(b) of such title is  
18      amended by striking paragraph (2) and inserting:

19              “(2) GOALS.—The goals of the program shall  
20      include—

21                  “(A) the development of new, cost-effec-  
22      tive, innovative highway bridge applications;

23                  “(B) the development of construction tech-  
24      niques to increase safety and reduce construc-  
25      tion time and traffic congestion;

1           “(C) the development of engineering design  
2           criteria for innovative products, materials, and  
3           structural systems for use in highway bridges  
4           and structures;

5           “(D) the reduction of maintenance costs  
6           and life-cycle costs of bridges, including the  
7           costs of new construction, replacement, or reha-  
8           bilitation of deficient bridges;

9           “(E) the development of highway bridges  
10          and structures that will withstand natural dis-  
11          asters and terrorist attacks;

12          “(F) the documentation and wide dissemi-  
13          nation of objective evaluations of the perform-  
14          ance and benefits of these innovative designs,  
15          materials, and construction methods; and

16          “(G) the effective transfer of resulting in-  
17          formation and technology.”.

18          (c) INNOVATIVE PAVEMENT RESEARCH AND DE-  
19          PLOYMENT PROGRAM.—Section 503 of title 23, United  
20          States Code, is amended by adding after subsection (b)  
21          the following:

22          “(c) INNOVATIVE PAVEMENT RESEARCH AND DE-  
23          PLOYMENT PROGRAM.—

24                 “(1) IN GENERAL.—The Secretary shall estab-  
25          lish and implement a program to promote, dem-

1       onstrate, support, and document the application of  
2       innovative pavement technologies, practices, per-  
3       formance, and benefits.

4               “(2) GOALS.—The goals of the innovative pave-  
5       ment research and deployment program shall in-  
6       clude—

7                       “(A) the deployment of new, cost-effective  
8       innovative designs, materials, and practices to  
9       extend pavement life and performance and to  
10      improve customer satisfaction;

11                      “(B) the reduction of initial costs and life-  
12      cycle costs of pavements, including the costs of  
13      new construction, replacement, maintenance,  
14      and rehabilitation;

15                      “(C) the deployment of accelerated con-  
16      struction techniques, including innovative pave-  
17      ment materials, to increase safety and reduce  
18      construction time and traffic disruption and  
19      congestion;

20                      “(D) the deployment of engineering design  
21      criteria and specifications for innovative prac-  
22      tices, products, and materials for use in high-  
23      way pavements;

1           “(E) the deployment of new nondestructive  
2           and real time pavement evaluation technologies  
3           and techniques;

4           “(F) evaluation, refinement, and docu-  
5           mentation of the performance and benefits of  
6           innovative technologies deployed to improve life,  
7           performance, cost effectiveness, safety, and cus-  
8           tomer satisfaction;

9           “(G) effective technology transfer and in-  
10          formation dissemination to accelerate imple-  
11          mentation of innovative technologies and to im-  
12          prove life, performance, cost effectiveness, safe-  
13          ty, and customer satisfaction; and

14          “(H) the development of designs and mate-  
15          rials to reduce storm water runoff.

16          “(3) GRANTS, COOPERATIVE AGREEMENTS, AND  
17          CONTRACTS.—

18                 “(A) IN GENERAL.—Under the program,  
19                 the Secretary shall make grants to, and enter  
20                 into cooperative agreements and contracts with  
21                 States, other Federal agencies, universities and  
22                 colleges, private sector entities, and nonprofit  
23                 organizations for research, development, and  
24                 technology transfer for innovative safety tech-  
25                 nologies.

1           “(B) APPLICATIONS.—To receive a grant  
2           under this subsection, an entity described in  
3           subparagraph (A) shall submit an application to  
4           the Secretary. The application shall be in such  
5           form and contain such information as the Sec-  
6           retary may require. The Secretary shall select  
7           and approve the applications based on open  
8           competition and peer review, and on whether  
9           the project that is the subject of the grant  
10          meets the goals of the program described in  
11          paragraph (2).

12          “(4) TECHNOLOGY AND INFORMATION TRANS-  
13          FER.—The Secretary shall take such action as is  
14          necessary to ensure that the information and tech-  
15          nology resulting from research conducted under  
16          paragraph (3) is made available to State and local  
17          transportation departments and other interested  
18          parties as specified by the Secretary.”.

19          (d) SAFETY INNOVATION DEPLOYMENT PROGRAM.—  
20          Section 503 of title 23, United States Code, as amended  
21          by this Act, is further amended by adding the following:

22          “(d) SAFETY INNOVATION DEPLOYMENT PRO-  
23          GRAM.—

24                 “(1) IN GENERAL.—The Secretary shall estab-  
25          lish and implement a program to demonstrate the

1 application of innovative technologies in highway  
2 safety.

3 “(2) GOALS.—The goals of the program shall  
4 include—

5 “(A) the deployment and evaluation of  
6 safety technologies and innovations at state and  
7 local levels; and

8 “(B) the deployment of best practices in  
9 training, management, design, and planning.

10 “(3) GRANTS, COOPERATIVE AGREEMENTS, AND  
11 CONTRACTS.—

12 “(A) IN GENERAL.—Under the program,  
13 the Secretary shall make grants to, and enter  
14 into cooperative agreements and contracts with  
15 States, other Federal agencies, universities and  
16 colleges, private sector entities, and nonprofit  
17 organizations for research, development, and  
18 technology transfer for innovative safety tech-  
19 nologies.

20 “(B) APPLICATIONS.—To receive a grant  
21 under this subsection, an entity described in  
22 subparagraph (A) shall submit an application to  
23 the Secretary. The application shall be in such  
24 form and contain such information as the Sec-  
25 retary may require. The Secretary shall select



1           and approve the applications based on open  
2           competition and peer review, and on whether  
3           the project that is the subject of the grant  
4           meets the goals of the program described in  
5           paragraph (2).

6           “(4) TECHNOLOGY AND INFORMATION TRANS-  
7       FER.—The Secretary shall take such action as is  
8       necessary to ensure that the information and tech-  
9       nology resulting from research conducted under  
10      paragraph (3) is made available to State and local  
11      transportation departments and other interested  
12      parties as specified by the Secretary.”.

13 **SEC. 106. TRAINING AND EDUCATION.**

14      (a) NATIONAL HIGHWAY INSTITUTE.—Section  
15      504(a) of title 23, United States Code, is amended by  
16      striking paragraph (3) and inserting the following:

17           “(3) COURSES.—

18           “(A) IN GENERAL.—The Institute shall de-  
19      velop or update courses in the subject areas of  
20      asset management, application of emerging  
21      technologies, including intelligent transportation  
22      systems, techniques, methods, regulations, in-  
23      formation technology, general management, en-  
24      vironmental stewardship, acquisition of rights-  
25      of-way, relocation assistance, engineering, safe-

ty, transportation system management and operations, construction, maintenance, contract administration, inspection, and finance.

“(B) ADDITIONAL COURSES.—In addition to the courses in the subject matter areas described in subparagraph (A), the Institute, in consultation with State transportation departments and the American Association of State Highway and Transportation Officials, may develop other courses as it considers necessary.

“(C) REVISION OF COURSES OFFERED.—The Institute shall periodically—

“(i) review the course inventory of the Institute; and

“(ii) revise or cease to offer courses based on course content, applicability, and need.”.

(b) LOCAL TECHNICAL ASSISTANCE PROGRAM.—

Section 504(b) of title 23, United States Code, is amended by adding at the end the following:

“(3) FEDERAL SHARE.—

“(A) GRANTS.—The grant funds authorized to carry out this subsection may be used to cover up to 50 percent of the program costs relating to local technical assistance. Funds

1           available for technology transfer and training  
 2           purposes under this title and title 49 may be  
 3           used to cover the remaining 50 percent of the  
 4           program costs.

5           “(B) TRIBAL TECHNICAL ASSISTANCE  
 6           CENTERS.—The Federal share of the cost of ac-  
 7           tivities carried out by the tribal technical assist-  
 8           ance centers under paragraph (2)(D)(ii) of this  
 9           subsection shall be 100 percent.”.

10       (c) SURFACE TRANSPORTATION WORKFORCE DE-  
 11       VELOPMENT, TRAINING, AND EDUCATION.—Section 504  
 12       of title 23, United States Code, is amended by adding at  
 13       the end the following:

14       “(d) SURFACE TRANSPORTATION WORKFORCE DE-  
 15       VELOPMENT, TRAINING, AND EDUCATION.—

16           “(1) FUNDING.—Subject to project approval by  
 17       the Secretary, a State may obligate funds appor-  
 18       tioned to it under sections 104(b)(1), (3), and (4)  
 19       and 144(e) of this title for surface transportation  
 20       workforce development, training and education, in-  
 21       cluding—

22           “(A) tuition and direct educational ex-  
 23       penses, excluding salaries, in connection with  
 24       the education and training of employees of  
 25       State and local transportation agencies;

1 “(B) employee professional development;

2 “(C) student internships; or

3 “(D) education outreach activities to de-  
4 velop interest and promote participation in sur-  
5 face transportation careers.

6 “(2) FEDERAL SHARE.—The Federal share of  
7 the cost of activities carried out in accordance with  
8 this subsection shall be 100 percent.”.

9 (d) DEFINITIONS AND DECLARATION OF POLICY.—  
10 Section 101(a) of title 23, United States Code, is amend-  
11 ed—

12 (1) in paragraph (3), by—

13 (A) striking “and” after subparagraph  
14 (G);

15 (B) striking the period after subparagraph  
16 (H) and inserting “; and”; and

17 (C) adding after subparagraph (H) the fol-  
18 lowing:

19 “(I) surface transportation workforce de-  
20 velopment, training, and education.”;

21 (2) by redesignating paragraphs (34) through  
22 (37) as paragraphs (35) through (38) respectively;  
23 and

24 (3) by adding after paragraph (33), as redesign-  
25 nated by this Act, the following:

1           “(34) SURFACE TRANSPORTATION WORKFORCE  
2       DEVELOPMENT, TRAINING, AND EDUCATION.—The  
3       term ‘surface transportation workforce development,  
4       training, and education’ means activities associated  
5       with surface transportation career awareness, stu-  
6       dent transportation career preparation, and training  
7       and professional development for surface transpor-  
8       tation workers, including activities for women and  
9       minorities.”.

10       (e) GARRETT A. MORGAN TECHNOLOGY AND TRANS-  
11   PORTATION EDUCATION PROGRAM.—Section 504 of title  
12   23, United States Code, as amended by this section, is  
13   further amended by adding at the end the following new  
14   subsection:

15       “(e) GARRETT A. MORGAN TECHNOLOGY AND  
16   TRANSPORTATION EDUCATION PROGRAM.—

17           “(1) IN GENERAL.—The Secretary shall estab-  
18       lish the Garrett A. Morgan Technology and Trans-  
19       portation Education Program to improve the prepa-  
20       ration of students, particularly women and minori-  
21       ties, in science, technology, engineering, and mathe-  
22       matics through curriculum development and other  
23       activities related to transportation.

24           “(2) AUTHORIZED ACTIVITIES.—The Secretary  
25       shall award grants under this subsection on the

1 basis of competitive, peer review. Grants awarded  
2 under this subsection may be used for enhancing  
3 science, technology, engineering, and mathematics at  
4 the elementary and secondary school level through  
5 such means as—

6 “(A) internships that offer students experi-  
7 ence in the transportation field;

8 “(B) programs that allow students to  
9 spend time observing scientists and engineers in  
10 the transportation field; and

11 “(C) developing relevant curriculum that  
12 uses examples and problems related to trans-  
13 portation.

14 “(3) APPLICATION AND REVIEW PROCE-  
15 DURES.—

16 “(A) IN GENERAL.—An entity described in  
17 subparagraph (C) seeking funding under this  
18 subsection shall submit an application to the  
19 Secretary at such time, in such manner, and  
20 containing such information as the Secretary  
21 may require. Such application, at a minimum,  
22 shall include a description of how the funds will  
23 be used and a description of how the funds will  
24 be used to serve the purposes described in para-  
25 graph (2).

1           “(B) PRIORITY.—In making awards under  
2           this subsection, the Secretary shall give priority  
3           to applicants that will encourage the participa-  
4           tion of women and minorities.

5           “(C) ELIGIBILITY.—Local education agen-  
6           cies and State education agencies, which may  
7           partner with institutions of higher education,  
8           businesses, or other entities, shall be eligible to  
9           apply for grants under this subsection.

10          “(4) DEFINITIONS.—For purposes of this sub-  
11          section—

12               “(A) the term ‘institution of higher edu-  
13               cation’ has the meaning given that term in sec-  
14               tion 101 of the Higher Education Act of 1965  
15               (20 U.S.C. 1001);

16               “(B) the term ‘local educational agency’  
17               has the meaning given that term in section  
18               9101 of the Elementary and Secondary Edu-  
19               cation Act of 1965 (20 U.S.C. 7801); and

20               “(C) the term ‘State educational agency’  
21               has the meaning given that term in section  
22               9101 of the Elementary and Secondary Edu-  
23               cation Act of 1965 (20 U.S.C. 7801).

24          “(5) AUTHORIZATION OF APPROPRIATIONS.—  
25          There are authorized to be appropriated to the Sec-

1       retary of Transportation to carry out this subsection  
 2       \$500,000 for fiscal year 2006 and such sums as  
 3       may be necessary thereafter.”.

4   **SEC. 107. BUREAU OF TRANSPORTATION STATISTICS.**

5       Section 111 of title 49, United States Code, is  
 6       amended to read as follows:

7   **“§ 111. Bureau of Transportation Statistics**

8       “(a) ESTABLISHMENT.—There is established in the  
 9       Department of Transportation a Bureau of Transpor-  
 10      tation Statistics.

11      “(b) DIRECTOR.—

12           “(1) APPOINTMENT.—The Bureau shall be  
 13      headed by a Director who shall be appointed by the  
 14      President, by and with the advice and consent of the  
 15      Senate.

16           “(2) QUALIFICATIONS.—The Director shall be  
 17      appointed from among individuals who are qualified  
 18      to serve as the Director by virtue of their training  
 19      and experience in the collection, analysis, and use of  
 20      transportation statistics.

21           “(3) REPORTING.—The Director shall report  
 22      directly to the Secretary.

23           “(4) TERM.—The term of the Director shall be  
 24      5 years. The Director may continue to serve after



1 the expiration of the term until a successor is ap-  
2 pointed and confirmed.

3 “(c) RESPONSIBILITIES.—The Director of the Bu-  
4 reau shall serve as the Secretary’s senior advisor on data  
5 and statistics, and shall be responsible for carrying out  
6 the following duties:

7 “(1) PROVIDING DATA, STATISTICS, AND ANAL-  
8 YSIS TO TRANSPORTATION DECISIONMAKERS.—En-  
9 suring that the statistics compiled under paragraph  
10 (5) are designed to support transportation decision-  
11 making by the Federal Government, State and local  
12 governments, metropolitan planning organizations,  
13 transportation-related associations, the private sec-  
14 tor (including the freight community), and the pub-  
15 lic.

16 “(2) COORDINATING COLLECTION OF INFORMA-  
17 TION.—Working with the operating administrations  
18 of the Department to establish and implement the  
19 Bureau’s data programs and to improve the coordi-  
20 nation of information collection efforts with other  
21 Federal agencies.

22 “(3) DATA MODERNIZATION.—Continually im-  
23 proving surveys and data collection methods to im-  
24 prove the accuracy and utility of transportation sta-  
25 tistics.

1           “(4) ENCOURAGING DATA STANDARDIZATION.—  
2       Encouraging the standardization of data, data col-  
3       lection methods, and data management and storage  
4       technologies for data collected by the Bureau, the  
5       operating administrations of the Department of  
6       Transportation, States, local governments, metro-  
7       politan planning organizations, and private sector  
8       entities.

9           “(5) COMPILING TRANSPORTATION STATIS-  
10       TICS.—Compiling, analyzing, and publishing a com-  
11       prehensive set of transportation statistics on the per-  
12       formance and impacts of the national transportation  
13       system, including statistics on—

14               “(A) productivity in various parts of the  
15       transportation sector;

16               “(B) traffic flows for all modes of trans-  
17       portation;

18               “(C) other elements of the Intermodal  
19       Transportation Database established under sub-  
20       section (g);

21               “(D) travel times and measures of conges-  
22       tion;

23               “(E) vehicle weights and other vehicle  
24       characteristics;

1           “(F) demographic, economic, and other  
2 variables influencing traveling behavior, includ-  
3 ing choice of transportation mode, and goods  
4 movement;

5           “(G) transportation costs for passenger  
6 travel and goods movement;

7           “(H) availability and use of mass transit  
8 (including the number of passengers served by  
9 each mass transit authority) and other forms of  
10 for-hire passenger travel;

11           “(I) frequency of vehicle and transpor-  
12 tation facility repairs and other interruptions of  
13 transportation service;

14           “(J) safety and security for travelers, vehi-  
15 cles, and transportation systems;

16           “(K) consequences of transportation for  
17 the human and natural environment;

18           “(L) the extent, connectivity, and condition  
19 of the transportation system, building on the  
20 National Transportation Atlas Database devel-  
21 oped under subsection (g); and

22           “(M) transportation-related variables that  
23 influence the domestic economy and global com-  
24 petitiveness.

1           “(6) NATIONAL SPATIAL DATA INFRASTRUC-  
2           TURE.—Building and disseminating the transpor-  
3           tation layer of the National Spatial Data Infrastruc-  
4           ture, including coordinating the development of  
5           transportation geospatial data standards, compiling  
6           intermodal geospatial data, and collecting geospatial  
7           data that is not being collected by others.

8           “(7) ISSUING GUIDELINES.—Issuing guidelines  
9           for the collection of information by the Department  
10          of Transportation required for statistics to be com-  
11          piled under paragraph (5) in order to ensure that  
12          such information is accurate, reliable, relevant, and  
13          in a form that permits systematic analysis. The Bu-  
14          reau shall review and report to the Secretary of  
15          Transportation on the sources and reliability of the  
16          statistics proposed by the heads of the operating ad-  
17          ministrations of the Department to measure outputs  
18          and outcomes as required by the Government Per-  
19          formance and Results Act of 1993, and the amend-  
20          ments made by such Act, and shall carry out such  
21          other reviews of the sources and reliability of other  
22          data collected or statistical information published by  
23          the heads of the operating administrations of the  
24          Department as shall be requested by the Secretary.

1           “(8) MAKING STATISTICS ACCESSIBLE.—Mak-  
2           ing the statistics published under this subsection  
3           readily accessible.

4           “(d) INFORMATION NEEDS ASSESSMENT.—

5           “(1) IN GENERAL.—Within 60 days after the  
6           date of the enactment of the Surface Transportation  
7           Research and Development Act of 2005, the Sec-  
8           retary shall enter into an arrangement with the Na-  
9           tional Research Council to develop and publish a  
10          National Transportation Information Needs Assess-  
11          ment. The Assessment shall be transmitted to the  
12          Secretary and the Congress not later than 24  
13          months after such arrangement is entered into.

14          “(2) CONTENT.—The Assessment shall—

15               “(A) identify, in priority order, transpor-  
16               tation data that is not being collected by the  
17               Bureau, Department of Transportation oper-  
18               ating administrations, or other Federal, State,  
19               or local entities, but is needed to improve trans-  
20               portation decisionmaking at the Federal, State,  
21               and local level and to fulfill the requirements of  
22               subsection (c)(5);

23               “(B) recommend whether the data identi-  
24               fied in subparagraph (A) should be collected by  
25               the Bureau, other parts of the Department, or

1 by other Federal, State, or local entities, and  
2 whether any data is a higher priority than data  
3 currently being collected;

4 “(C) identify any data the Bureau or other  
5 Federal, State, and local entities is collecting  
6 that is not needed;

7 “(D) describe new data collection methods  
8 (including changes in surveys) and other  
9 changes the Bureau or other Federal, State,  
10 and local entities should implement to improve  
11 the standardization, accuracy, and utility of  
12 transportation data and statistics; and

13 “(E) estimate the cost of implementing  
14 any recommendations.

15 “(3) CONSULTATION.—In developing the As-  
16 sessment, the National Research Council shall con-  
17 sult with the Department’s Advisory Council on  
18 Transportation Statistics and a representative cross-  
19 section of transportation community stakeholders as  
20 well as other Federal agencies, including the Envi-  
21 ronmental Protection Agency, the Department of  
22 Energy, and the Department of Housing and Urban  
23 Development.

24 “(4) REPORT TO CONGRESS.—Not later than 6  
25 months after the National Research Council trans-

mits the Needs Assessment under paragraph (1), the Secretary shall transmit a report to the Committee on Science and the Committee on Transportation and Infrastructure of the House of Representatives, and to the Committee on Environment and Public Works of the Senate, that describes—

“(A) how the Department plans to fill the data gaps identified under paragraph (2)(A);

“(B) how the Department plans to stop collecting data identified under paragraph (2)(C);

“(C) how the Department plans to implement improved data collection methods and other changes identified under paragraph (2)(D);

“(D) the expected costs of implementing subparagraphs (A), (B), and (C) of this paragraph;

“(E) any findings of the Needs Assessment under paragraph (1) with which the Secretary disagrees, and why; and

“(F) any proposed statutory changes needed to implement the findings if the Needs Assessment under paragraph (1).

“(e) INTERMODAL TRANSPORTATION DATA BASE.—

1           “(1) IN GENERAL.—In consultation with the  
2           Under Secretary for Policy, the Assistant Secre-  
3           taries, and the heads of the operating administra-  
4           tions of the Department of Transportation, the Di-  
5           rector shall establish and maintain a transportation  
6           data base for all modes of transportation.

7           “(2) USE.—The data base shall be suitable for  
8           analyses carried out by the Federal Government, the  
9           States, and metropolitan planning organizations.

10          “(3) CONTENTS.—The data base shall in-  
11          clude—

12               “(A) information on the volumes and pat-  
13               terns of movement of goods, including local,  
14               interregional, and international movement, by  
15               all modes of transportation and intermodal  
16               combinations, and by relevant classification;

17               “(B) information on the volumes and pat-  
18               terns of movement of people, including local,  
19               interregional, and international movements, by  
20               all modes of transportation (including bicycle  
21               and pedestrian modes) and intermodal combina-  
22               tions, and by relevant classification;

23               “(C) information on the location and  
24               connectivity of transportation facilities and  
25               services; and



1                   “(D) a national accounting of expenditures  
2                   and capital stocks on each mode of transpor-  
3                   tation and intermodal combination.

4                   “(f) NATIONAL TRANSPORTATION LIBRARY.—

5                   “(1) IN GENERAL.—The Director shall establish  
6                   and maintain a National Transportation Library,  
7                   which shall contain a collection of statistical and  
8                   other information needed for transportation decision-  
9                   making at the Federal, State, and local levels.

10                  “(2) ACCESS.—The Director shall facilitate and  
11                  promote access to the Library, with the goal of im-  
12                  proving the ability of the transportation community  
13                  to share information and the ability of the Director  
14                  to make statistics readily accessible under subsection  
15                  (c)(8).

16                  “(3) COORDINATION.—The Director shall work  
17                  with other transportation libraries and other trans-  
18                  portation information providers, both public and pri-  
19                  vate, to achieve the goal specified in paragraph (2).

20                  “(g) NATIONAL TRANSPORTATION ATLAS DATA  
21                  BASE.—

22                  “(1) IN GENERAL.—The Director shall develop  
23                  and maintain geospatial data bases that depict—

24                         “(A) transportation networks;

1                   “(B) flows of people, goods, vehicles, and  
2                   craft over the networks; and

3                   “(C) social, economic, and environmental  
4                   conditions that affect or are affected by the net-  
5                   works.

6                   “(2) INTERMODAL NETWORK ANALYSIS.—The  
7                   data bases shall be able to support intermodal net-  
8                   work analysis.

9                   “(h) MANDATORY RESPONSE AUTHORITY FOR  
10                  FREIGHT DATA COLLECTION.—Whoever, being the  
11                  owner, official, agent, person in charge, or assistant to the  
12                  person in charge, of any corporation, company, business,  
13                  institution, establishment, or organization of any nature  
14                  whatsoever, neglects or refuses, when requested by the Di-  
15                  rector or other authorized officer, employee or contractor  
16                  of the Bureau, to answer completely and correctly to the  
17                  best of his/her knowledge all questions relating to the cor-  
18                  poration, company, business, institution, establishment, or  
19                  other organization, or to records or statistics in his/her  
20                  official custody, contained in a data collection request pre-  
21                  pared and submitted as part of the collection of freight  
22                  data, shall be fined not more than \$500; and if the indi-  
23                  vidual willfully gives a false answer to a question, shall  
24                  be fined not more than \$10,000.

1       “(i) RESEARCH AND DEVELOPMENT GRANTS.—The  
2 Secretary may make grants to, or enter into cooperative  
3 agreements or contracts with, public and nonprofit private  
4 entities (including State transportation departments, met-  
5 ropolitan planning organizations, and institutions of high-  
6 er education) for—

7               “(1) investigation of the subjects specified in  
8 subsection (c)(5) and research and development of  
9 new methods of data collection, standardization,  
10 management, integration, dissemination, interpreta-  
11 tion, and analysis;

12               “(2) demonstration programs by States, local  
13 governments, and metropolitan planning organiza-  
14 tions to harmonize data collection, reporting, man-  
15 agement, storage, and archiving to simplify data  
16 comparisons across jurisdictions;

17               “(3) development of electronic clearinghouses of  
18 transportation data and related information, as part  
19 of the National Transportation Library under sub-  
20 section (f); and

21               “(4) development and improvement of methods  
22 for sharing geographic data, in support of the na-  
23 tional transportation atlas data base under sub-  
24 section (g) and the National Spatial Data Infra-

1 structure developed under Executive Order No.  
2 12906.

3 “(j) LIMITATIONS ON STATUTORY CONSTRUCTION.—

4 Nothing in this section shall be construed—

5 “(1) to authorize the Bureau to require any  
6 other department or agency to collect data; or

7 “(2) to reduce the authority of any other officer  
8 of the Department of Transportation to collect and  
9 disseminate data independently.

10 “(k) PROHIBITION ON CERTAIN DISCLOSURES.—

11 “(1) IN GENERAL.—An officer or employee of  
12 the Bureau may not—

13 “(A) make any disclosure in which the  
14 data provided by an individual or organization  
15 under subsection (c) can be identified;

16 “(B) use the information provided under  
17 subsection (c) for a nonstatistical purpose; or

18 “(C) permit anyone other than an indi-  
19 vidual authorized by the Director to examine  
20 any individual report provided under subsection  
21 (c).

22 “(2) PROHIBITION ON REQUESTS FOR CERTAIN  
23 DATA.—

24 “(A) GOVERNMENT AGENCIES.—No de-  
25 partment, bureau, agency, officer, or employee

1 of the United States (except the Director in  
2 carrying out this section) may require, for any  
3 reason, a copy of any report that has been filed  
4 under subsection (c) with the Bureau or re-  
5 tained by an individual respondent.

6 “(B) COURTS.—Any copy of a report de-  
7 scribed in subparagraph (A) that has been re-  
8 tained by an individual respondent or filed with  
9 the Bureau or any of its employees, contractors,  
10 or agents—

11 “(i) shall be immune from legal proc-  
12 ess; and

13 “(ii) shall not, without the consent of  
14 the individual concerned, be admitted as  
15 evidence or used for any purpose in any  
16 action, suit, or other judicial or adminis-  
17 trative proceeding.

18 “(C) APPLICABILITY.—This paragraph  
19 shall apply only to reports that permit informa-  
20 tion concerning an individual or organization to  
21 be reasonably inferred by direct or indirect  
22 means.

23 “(3) DATA COLLECTED FOR NONSTATISTICAL  
24 PURPOSES.—In a case in which the Bureau is au-  
25 thorized by statute to collect data or information for

1       a nonstatistical purpose, the Director shall clearly  
2       distinguish the collection of the data or information,  
3       by rule and on the collection instrument, so as to in-  
4       form a respondent that is requested or required to  
5       supply the data or information of the nonstatistical  
6       purpose.

7       “(l) TRANSPORTATION STATISTICS ANNUAL RE-  
8       PORT.—The Director shall transmit to the President and  
9       Congress a Transportation Statistics Annual Report which  
10      shall include information on items referred to in sub-  
11      section (c)(5), documentation of methods used to obtain  
12      and ensure the quality of the statistics presented in the  
13      report, and recommendations for improving transportation  
14      statistical information.

15      “(m) PROCEEDS OF DATA PRODUCT SALES.—Not-  
16      withstanding section 3302 of title 31, funds received by  
17      the Bureau from the sale of data products, for necessary  
18      expenses incurred, may be credited to the Highway Trust  
19      Fund (other than the Mass Transit Account) for the pur-  
20      pose of reimbursing the Bureau for the expenses.

21      “(n) ADVISORY COUNCIL ON TRANSPORTATION STA-  
22      TISTICS.—

23             “(1) ESTABLISHMENT.—The Director of the  
24      Bureau of Transportation Statistics shall establish  
25      an Advisory Council on Transportation Statistics.

1           “(2) FUNCTION.—It shall be the function of the  
2   Advisory Council established under this subsection  
3   to—

4           “(A) advise the Director of the Bureau of  
5   Transportation Statistics on the quality, reli-  
6   ability, consistency, objectivity, and relevance of  
7   transportation statistics and analyses collected,  
8   supported, or disseminated by the Bureau of  
9   Transportation Statistics and the Department  
10   of Transportation;

11          “(B) provide input to and review the re-  
12   port to Congress under subsection (d)(4); and

13          “(C) advise the Director on methods to en-  
14   courage harmonization and interoperability of  
15   transportation data collected by the Bureau, the  
16   operating administrations of the Department of  
17   Transportation, States, local governments, met-  
18   ropolitan planning organizations, and private  
19   sector entities.

20          “(3) MEMBERSHIP.—The Advisory Council es-  
21   tablished under this subsection shall be composed of  
22   not fewer than 15 members appointed by the Direc-  
23   tor, who are not officers or employees of the United  
24   States, including—

1           “(A) 2 members with specific expertise in  
2           economics;

3           “(B) 3 members with expertise in statis-  
4           tics; and

5           “(C) additional members with expertise in  
6           transportation statistics, analysis, or policy.

7           Members shall include representatives of a cross-sec-  
8           tion of transportation community stakeholders.

9           “(4) TERMS OF APPOINTMENT.—(A) Except as  
10          provided in subparagraph (B), members shall be ap-  
11          pointed to staggered terms not to exceed 3 years. A  
12          member may be renominated for one additional 3-  
13          year term.

14          “(B) Members serving on the Advisory Council  
15          on Transportation Statistics as of the date of enact-  
16          ment of the Surface Transportation Research and  
17          Development Act of 2005 shall serve until the end  
18          of their appointed terms.

19          “(5) APPLICABILITY OF FEDERAL ADVISORY  
20          COMMITTEE ACT.—The Federal Advisory Committee  
21          Act shall apply to the Advisory Council established  
22          under this subsection, except that section 14 of the  
23          Federal Advisory Committee Act shall not apply to  
24          such Advisory Council.”.



1 **SEC. 108. STATE PLANNING AND RESEARCH.**

2 Section 505 of title 23, United States Code, is  
3 amended to read as follows:

4 **“§ 505. State planning and research**

5 “(a) IN GENERAL.—Two and a half percent of the  
6 sums apportioned to a State for fiscal year 2005 and each  
7 fiscal year thereafter under section 104 (other than sub-  
8 sections (f) and (h)) and under sections 105 and 144 shall  
9 be available for expenditure by the State, in consultation  
10 with the Secretary, only for the following purposes:

11 “(1) Engineering and economic surveys and in-  
12 vestigations.

13 “(2) The planning of future highway programs  
14 and local public transportation systems, the planning  
15 of the financing of such programs and systems, in-  
16 cluding metropolitan and Statewide planning under  
17 sections 134 and 135, freight planning, safety plan-  
18 ning, transportation systems management and oper-  
19 ations planning, transportation-related land use  
20 planning, and transportation-related growth manage-  
21 ment activities within these planning processes, and  
22 planning capacity building activities.

23 “(3) Development and implementation of infra-  
24 structure management and traffic monitoring sys-  
25 tems, and for asset management.

1           “(4) Studies of the economy, safety, and con-  
2           venience of highway, local public transportation, bi-  
3           cycle, and pedestrian systems and the desirable reg-  
4           ulation and equitable taxation of their use.

5           “(5) Research, development, and technology  
6           transfer activities necessary in connection with the  
7           planning, design, construction, management, mainte-  
8           nance, regulation, and taxation of the use of high-  
9           way, local public transportation, and intermodal  
10          transportation systems, including innovative tech-  
11          niques for ensuring representative public input (e.g.  
12          deliberative polling).

13          “(6) Research on the effects of design stand-  
14          ards on intermodal coordination, such as the high-  
15          way-rail interface, and on safe pedestrian access to  
16          transit on arterial roads and urban highways.

17          “(7) Study, research and development, and  
18          training on the engineering standards and construc-  
19          tion materials, including accreditation of inspection  
20          and testing, for highway, local public transportation,  
21          bicycle, pedestrian, and intermodal transportation  
22          systems.

23          “(b) MINIMUM EXPENDITURES ON RESEARCH, DE-  
24          VELOPMENT, AND TECHNOLOGY TRANSFER ACTIVI-  
25          TIES.—

1           “(1) IN GENERAL.—Subject to paragraph (2),  
2       not less than 25 percent of the funds appropriated  
3       pursuant to subsection (a) to a State for a fiscal  
4       year shall be expended by the State for research, de-  
5       velopment, and technology transfer activities de-  
6       scribed in subsection (a), relating to highway, public  
7       transportation, bicycle, pedestrian, and intermodal  
8       transportation systems.

9           “(2) WAIVERS.—The Secretary may waive the  
10      application of paragraph (1) with respect to a State  
11      for a fiscal year if the State certifies to the Sec-  
12      retary for the fiscal year that the funds described in  
13      paragraph (1) are not needed for research, develop-  
14      ment, and technology transfer and the Secretary ac-  
15      cepts such certification.

16          “(3) NONAPPLICABILITY OF ASSESSMENT.—  
17      Funds expended under paragraph (1) shall not be  
18      considered to be part of the extramural budget of  
19      the agency for the purpose of section 9 of the Small  
20      Business Act (15 U.S.C. 638).

21          “(c) MINIMUM EXPENDITURES FOR IMPROVING THE  
22      QUALITY OF COLLECTION AND REPORTING OF STRA-  
23      TEGIC SURFACE TRANSPORTATION DATA.—

24           “(1) IN GENERAL.—Subject to paragraph (2),  
25      not less than 10 percent of the funds appropriated

1       pursuant to subsection (a) for a fiscal year to a  
2       State shall be expended by the State to improve the  
3       collection and reporting of strategic surface trans-  
4       portation data to provide critical information about  
5       the extent, condition, use, performance, and financ-  
6       ing of the Nation’s surface transportation system  
7       (including intermodal connectors) for passenger and  
8       freight movement.

9               “(2) WAIVERS.—The Secretary may waive the  
10       application of paragraph (1) with respect to a State  
11       for a fiscal year if the State certifies to the Sec-  
12       retary for the fiscal year that the State is collecting  
13       and reporting strategic data consistent with quality  
14       assurance guidelines developed cooperatively with the  
15       States and the Secretary approves such certification.

16       “(d) FEDERAL SHARE.—The Federal share of the  
17       cost of a project carried out using funds subject to sub-  
18       section (a) shall be matched in accordance with section  
19       120(b) unless the Secretary determines that the interests  
20       of the surface transportation program would be best  
21       served without such matching.”.

1 **SEC. 109. FUTURE STRATEGIC HIGHWAY RESEARCH PRO-**  
2 **GRAM.**

3 (a) AMENDMENT.—Chapter 5 of title 23, United  
4 States Code, is amended by adding at the end the fol-  
5 lowing new section:

6 **“§ 509. Future Strategic Highway Research Program**

7 “(a) ESTABLISHMENT.—The Secretary, in consulta-  
8 tion with the American Association of State Highway and  
9 Transportation Officials, shall establish and support a  
10 grant program to be known as the Future Strategic High-  
11 way Research Program.

12 “(b) PROGRAM.—The program established under this  
13 section shall implement the Transportation Research  
14 Board Special Report 260, entitled ‘Strategic Highway  
15 Research: Saving Lives, Reducing Congestion, Improving  
16 Quality of Life’, which included the following research  
17 areas:

18 “(1) Accelerating the renewal of America’s  
19 highways.

20 “(2) Making a significant improvement in high-  
21 way safety.

22 “(3) Providing a highway system with reliable  
23 travel times.

24 “(4) Providing highway capacity in support of  
25 the Nation’s economic, environmental, multi-modal  
26 transportation, and social goals.

1       “(c) ADMINISTRATION.—The Secretary shall enter  
2 into an arrangement with the National Research Council  
3 to administer the program established under subsection  
4 (a).

5       “(d) PERIOD OF AVAILABILITY.—Funds set aside to  
6 carry out this section shall remain available for the fiscal  
7 year for which such funds are made available and the  
8 three succeeding fiscal years.

9       “(e) AUTHORIZATION OF APPROPRIATIONS.—There  
10 are authorized to be appropriated to the Secretary of  
11 Transportation from the Highway Trust Fund, for each  
12 of fiscal years 2005 through 2010, \$75,000,000 to carry  
13 out this section.

14       “(f) PROGRAM ADMINISTRATION.—In carrying out  
15 the program under this section, the Secretary, through the  
16 agreement with the National Research Council, shall en-  
17 sure that the selection of awards shall be based on open  
18 competition and peer review, and that a balanced group  
19 of stakeholders is represented on all committees and pan-  
20 els established to implement the program. Proposals that  
21 involve partnerships and include significant matching  
22 funds shall be encouraged, although no matching funds  
23 are required.

24       “(g) PROGRAMMATIC EVALUATIONS.—Within 3 years  
25 after the first research and development project grants,

1 cooperative agreements, or contracts are awarded under  
 2 this section, the Comptroller General shall review the pro-  
 3 gram under this section, and recommend improvements.  
 4 The review shall assess the degree to which projects fund-  
 5 ed under this section have addressed the research and de-  
 6 velopment topics identified in the Transportation Research  
 7 Board Special Report 260, including identifying those top-  
 8 ics which have not yet been addressed.

9 “(h) ANNUAL PROGRESS AND PERFORMANCE RE-  
 10 PORT.—The National Research Council shall produce an  
 11 annual progress and performance report for the program  
 12 under this section. The report shall summarize the status,  
 13 funding, and sponsors of all funded projects by the re-  
 14 search and development areas specified in subsection (b).  
 15 The report shall be submitted to the Secretary, to the  
 16 Committee on Transportation and Infrastructure and the  
 17 Committee on Science of the House of Representatives,  
 18 and to the Committee on Environment and Public Works  
 19 of the Senate.”.

20 (b) CONFORMING AMENDMENT.—The analysis of  
 21 chapter 5 of title 23, United States Code, is amended by  
 22 adding at the end the following new item:

“509. Future strategic highway research program.”.

23 **SEC. 110. UNIVERSITY TRANSPORTATION RESEARCH.**

24 Section 5505 of title 49, United States Code, is  
 25 amended to read as follows:

1 **“§ 5505. University transportation research**

2       “(a) REGIONAL CENTERS.—The Secretary of Trans-  
3 portation shall make grants to nonprofit institutions of  
4 higher learning to establish and operate 1 university  
5 transportation center in each of the 10 United States Gov-  
6 ernment regions that comprise the Standard Federal Re-  
7 gional Boundary System.

8       “(b) OTHER CENTERS.—The Secretary shall make  
9 16 grants to nonprofit institutions of higher learning, in  
10 addition to grants made under subsection (a), to establish  
11 and operate university transportation centers.

12       “(c) ROLE OF CENTERS.—The role of each center  
13 shall be to address transportation management and re-  
14 search and development matters, with special attention to  
15 increasing the number of highly skilled individuals enter-  
16 ing the field of transportation.

17       “(d) SELECTION OF GRANT RECIPIENTS.—

18               “(1) APPLICATIONS.—In order to be eligible to  
19 receive a grant under this section, a nonprofit insti-  
20 tution of higher learning shall submit to the Sec-  
21 retary an application that is in such form and con-  
22 tains such information as the Secretary may require.

23               “(2) SELECTION CRITERIA.—Except as other-  
24 wise provided by this section, the Secretary shall se-  
25 lect each recipient of a grant under this section



1 through an open competition, peer-reviewed process  
2 on the basis of the following:

3 “(A) The capability of the recipient to pro-  
4 vide leadership in making national and regional  
5 contributions to the solution of immediate and  
6 long-range transportation problems.

7 “(B) The recipient’s establishment of a  
8 surface transportation program by the date of  
9 the award, which encompasses several modes of  
10 transportation.

11 “(C) The recipient’s demonstrated ability  
12 to disseminate results of transportation re-  
13 search and education programs through a state-  
14 wide or regionwide continuing education pro-  
15 gram.

16 “(D) The strategic plan the recipient pro-  
17 poses to carry out under the grant.

18 “(e) OBJECTIVES.—The Secretary shall ensure that  
19 each university transportation center receiving a grant  
20 under this section shall conduct the following programs  
21 and activities:

22 “(1) Basic and applied research and develop-  
23 ment that supports the Department’s research and  
24 development agenda consistent with section 508 of  
25 title 23.

1           “(2) An education program that includes multi-  
2       disciplinary course work, faculty and student partici-  
3       pation in research and development, and an oppor-  
4       tunity for practical experience.

5           “(3) An ongoing program of technology transfer  
6       that makes research and development results avail-  
7       able to potential users in a form that can be imple-  
8       mented, utilized, or otherwise applied.

9       “(f) MAINTENANCE OF EFFORT.—To be eligible to  
10   receive a grant under this section, an applicant shall—

11           “(1) enter into an agreement with the Secretary  
12       to ensure that the applicant will maintain total ex-  
13       penditures from all other sources to establish and  
14       operate a university transportation center and re-  
15       lated educational and research and development ac-  
16       tivities at a level that is at least equal to the average  
17       level of those expenditures during the 2 fiscal years  
18       before the date on which the grant is provided;

19           “(2) submit to the Secretary an annual report  
20       on the projects and activities of the university trans-  
21       portation center for which funds are made available  
22       for the fiscal year covered by the report, a descrip-  
23       tion of—

1           “(A) the educational activities carried out  
2           by the center (including a detailed summary of  
3           the budget for those educational activities);

4           “(B) each research and development  
5           project carried out by the center, including—

6                   “(i) the identity of the principal inves-  
7                   tigator working on a research and develop-  
8                   ment project; and

9                   “(ii) the overall funding amount for  
10                  each research and development project (in-  
11                  cluding the amounts expended for the  
12                  project as of the date of the report); and

13           “(C) overall technology transfer and imple-  
14           mentation efforts of the center; and

15           “(3) make use of National Research Council,  
16           Transportation Research Board, and Transportation  
17           Research Information Services online databases  
18           for—

19                   “(A) program development and strategic  
20                   planning;

21                   “(B) reporting of activities funded under  
22                   this section; and

23                   “(C) input and dissemination of results  
24                   and reports from completed research and devel-  
25                   opment.

1       “(g) FEDERAL SHARE.—The Federal share of the  
2 costs of activities carried out using a grant made under  
3 subsection (a) is 80 percent of costs, and under subsection  
4 (b) is 50 percent of costs. The non-Federal share may in-  
5 clude funds provided to a recipient under section 503,  
6 504(b), or 505 of title 23, United States Code.

7       “(h) PROGRAM COORDINATION.—

8               “(1) COORDINATION.—The Secretary shall co-  
9 ordinate the research and development, education,  
10 training, and technology transfer activities that  
11 grant recipients carry out under this section.

12              “(2) ANNUAL REVIEW AND EVALUATION.—At  
13 least annually and consistent with the plan devel-  
14 oped by the recipient under subsection (f)(2), the  
15 Secretary shall review and evaluate programs the  
16 grant recipients carry out.

17              “(3) FUNDING LIMITATION.—The Secretary  
18 may use not more than 1 percent of amounts made  
19 available from Government sources to carry out this  
20 subsection.

21       “(i) LIMITATION ON AVAILABILITY OF FUNDS.—  
22 Funds made available to carry out this program shall re-  
23 main available for obligation for a period of 2 years after  
24 the last day of the fiscal year for which such funds are  
25 authorized.

1       “(j) TRANSPORTATION EDUCATION DEVELOPMENT  
2 PILOT PROGRAM.—

3               “(1) ESTABLISHMENT.—The Secretary shall es-  
4 tablish a program to make grants to institutions of  
5 higher education that in partnership with industry  
6 or State Departments of Transportation will de-  
7 velop, test, and revise new curricula and education  
8 programs to train individuals at all levels of the  
9 transportation workforce.

10              “(2) SELECTION OF GRANT RECIPIENTS.—In  
11 selecting applications for awards under this sub-  
12 section, the Secretary shall consider—

13                      “(A) the degree to which the new curricula  
14 or education program meets the specific needs  
15 of a segment of the transportation industry,  
16 States, or regions;

17                      “(B) providing for practical experience and  
18 on-the-job training;

19                      “(C) proposals oriented toward practi-  
20 tioners in the field rather than the support and  
21 growth of the research community;

22                      “(D) the degree to which the new curricula  
23 or program will provide training in areas other  
24 than engineering, such as business administra-

tion, economics, information technology, environmental science, and law;

“(E) programs or curricula in nontraditional departments which train professionals for work in the transportation field, such as materials, information technology, environmental science, urban planning, and industrial technology; and

“(F) industry or a State’s Department of Transportation commitment to the program.

“(3) AUTHORIZATION OF APPROPRIATIONS.—

From amounts authorized under section 101(b)(4) of the Surface Transportation Research and Development Act of 2005 for carrying out this section, for each of fiscal years 2005, 2006, 2007, 2008, 2009, and 2010, there shall be available for carrying out this subsection \$4,500,000.

“(4) LIMITATIONS.—No individual grant under this subsection shall exceed \$750,000 per year. After a recipient has received 3 years of Federal funding under this subsection, Federal funding may equal no more than 75 percent of a grantee’s program costs.

“(k) NATIONAL TRANSPORTATION SECURITY CENTERS.—

1           “(1) ESTABLISHMENT.—The Secretary shall es-  
2       tablish not more than 4 National Transportation Se-  
3       curity Centers at institutions of higher education to  
4       conduct research, education, and professional train-  
5       ing on all aspects of surface transportation security,  
6       with emphasis on utilization of intelligent transpor-  
7       tation systems, technologies, and architectures.

8           “(2) SELECTION CRITERIA.—The Secretary  
9       shall make grants using a competitive peer-reviewed  
10      procedure that gives priority to—

11           “(A) institutions with a commitment to  
12      transportation security issues;

13           “(B) proposals that include partnerships  
14      with other institutions of higher education, fed-  
15      erally funded research and development centers,  
16      or other nonprofit laboratories;

17           “(C) proposals to conduct both practical  
18      and theoretical research and technical systems  
19      analysis; and

20           “(D) proposals to develop professional  
21      training programs.”.

22   **SEC. 111. INTELLIGENT TRANSPORTATION SYSTEMS.**

23       (a) AMENDMENT.—Subtitle C of title V of the Trans-  
24      portation Equity Act for the 21st Century is amended to  
25      read as follows:

## **“Subtitle C—Intelligent Transportation Systems**

### **“SEC. 5201. SHORT TITLE.**

“This subtitle may be cited as the ‘Intelligent Transportation Systems Act of 2005’.

### **“SEC. 5202. GOALS AND PURPOSES.**

“(a) GOALS.—The goals of the intelligent transportation system program include—

“(1) enhancement of surface transportation efficiency and facilitation of intermodalism and international trade to enable existing facilities to meet a significant portion of future transportation needs, including public access to employment, goods, and services, and to reduce regulatory, financial, and other transaction costs to public agencies and system users;

“(2) achievement of national transportation safety goals, including the enhancement of safe operation of motor vehicles and nonmotorized vehicles, with particular emphasis on decreasing the number and severity of collisions;

“(3) protection and enhancement of the natural environment and communities affected by surface transportation, with particular emphasis on assisting



1 State and local governments to achieve national en-  
2 vironmental goals;

3 “(4) accommodation of the needs of all users of  
4 surface transportation systems, including operators  
5 of commercial vehicles, passenger vehicles, motor-  
6 cycles, and bicycles, and including pedestrians and  
7 individuals with disabilities; and

8 “(5) improvement of the Nation’s ability to re-  
9 spond to security related or other man-made emer-  
10 gencies and natural disasters, and enhancement of  
11 national defense mobility.

12 “(b) PURPOSES.—The Secretary shall implement ac-  
13 tivities under the intelligent transportation system pro-  
14 gram to, at a minimum—

15 “(1) develop and test emerging technologies to  
16 meet the goals described in subsection (a);

17 “(2) expedite deployment and ensure integra-  
18 tion and interoperability of proven intelligent trans-  
19 portation systems;

20 “(3) analyze the likelihood of utilization of in-  
21 telligent transportation system technologies by the  
22 intended user community;

23 “(4) ensure that Federal, State, and local  
24 transportation officials have adequate knowledge of

1 intelligent transportation systems for full consider-  
2 ation in the transportation planning process;

3 “(5) improve regional cooperation and oper-  
4 ations planning for effective intelligent transpor-  
5 tation system deployment;

6 “(6) promote the innovative use of private re-  
7 sources;

8 “(7) develop a workforce capable of developing,  
9 operating, and maintaining intelligent transportation  
10 systems; and

11 “(8) evaluate costs and benefits of intelligent  
12 transportation systems projects.

13 **“SEC. 5203. GENERAL AUTHORITIES AND REQUIREMENTS.**

14 “(a) SCOPE.—Subject to the provisions of this sub-  
15 title, the Secretary shall conduct an ongoing intelligent  
16 transportation system program to research, develop, and  
17 operationally test intelligent transportation systems and  
18 advance nationwide deployment of proven systems through  
19 research on barriers to deployment as a component of the  
20 surface transportation systems of the United States.

21 “(b) POLICY.—Intelligent transportation system re-  
22 search, development, operational tests, and deployment  
23 projects funded pursuant to this subtitle shall encourage  
24 and not displace public-private partnerships or private sec-

1 tor investment in such research and development tests and  
2 projects.

3 “(c) COOPERATION WITH GOVERNMENTAL, PRI-  
4 VATE, AND EDUCATIONAL ENTITIES.—The Secretary  
5 shall carry out the intelligent transportation system pro-  
6 gram in cooperation with State and local governments and  
7 other public entities, the United States private sector, fed-  
8 erally funded research and development centers, and col-  
9 leges and universities, including historically black colleges  
10 and universities and other minority institutions of higher  
11 education.

12 “(d) CONSULTATION WITH FEDERAL OFFICIALS.—  
13 In carrying out the intelligent transportation system pro-  
14 gram, the Secretary, as appropriate, may consult with the  
15 Secretary of Commerce, the Secretary of the Treasury, the  
16 Secretary of Homeland Security, the Administrator of the  
17 Environmental Protection Agency, the Director of the Na-  
18 tional Science Foundation, and the heads of other Federal  
19 departments and agencies.

20 “(e) TECHNICAL ASSISTANCE, TRAINING, AND IN-  
21 FORMATION.—The Secretary shall provide technical as-  
22 sistance, training, and information to State and local gov-  
23 ernments seeking to implement, operate, maintain, or  
24 evaluate intelligent transportation system technologies and  
25 services.

1       “(f) TRANSPORTATION PLANNING.—The Secretary  
 2 may provide funding to support adequate consideration of  
 3 transportation system management and operations within  
 4 metropolitan and statewide transportation planning proc-  
 5 esses.

6       “(g) INFORMATION CLEARINGHOUSE.—

7               “(1) IN GENERAL.—The Secretary shall—

8                       “(A) maintain a repository for technical  
 9 and safety data collected as a result of federally  
 10 sponsored projects carried out under this sub-  
 11 title; and

12                      “(B) make that information (except for  
 13 proprietary information and data) readily avail-  
 14 able to all users of the repository.

15       “(2) AGREEMENT.—

16               “(A) IN GENERAL.—The Secretary may  
 17 enter into an agreement with a third party for  
 18 the maintenance of the repository for technical  
 19 and safety data under paragraph (1)(A).

20               “(B) FEDERAL FINANCIAL ASSISTANCE.—

21 If the Secretary delegates responsibility under  
 22 subparagraph (A), the entity to which the re-  
 23 sponsibility is delegated shall be eligible for  
 24 Federal financial assistance under this section.

25       “(h) ADVISORY COMMITTEE.—

1           “(1) IN GENERAL.—The Secretary shall estab-  
2       lish an Advisory Committee to advise the Secretary  
3       on carrying out this subtitle.

4           “(2) MEMBERSHIP.—The Advisory Committee  
5       shall have no more than 20 members, be balanced  
6       between metropolitan and rural interests, and in-  
7       clude, at a minimum—

8           “(A) a representative from a State high-  
9       way department;

10          “(B) a representative from a local highway  
11       department who is not from a metropolitan  
12       planning organization;

13          “(C) a representative from a State, local,  
14       or regional transit agency;

15          “(D) a representative from a metropolitan  
16       planning organization;

17          “(E) a private sector user of intelligent  
18       transportation system technologies;

19          “(F) an academic researcher with expertise  
20       in computer science or another information  
21       science field related to intelligent transportation  
22       systems, and who is not an expert on transpor-  
23       tation issues;

24          “(G) an academic researcher who is a civil  
25       engineer;

1           “(H) an academic researcher who is a so-  
2           cial scientist with expertise in transportation  
3           issues;

4           “(I) a representative from a not-for-profit  
5           group representing the intelligent transpor-  
6           tation system industry;

7           “(J) a representative from a public interest  
8           group concerned with safety;

9           “(K) a representative from a public inter-  
10          est group concerned with the impact of the  
11          transportation system on land use and residen-  
12          tial patterns; and

13          “(L) members with expertise in planning,  
14          safety, and operations.

15          “(3) DUTIES.—The Advisory Committee shall,  
16          at a minimum, perform the following duties:

17               “(A) Provide input into the development of  
18               the Intelligent Transportation System aspects  
19               of the strategic plan under section 508 of title  
20               23, United States Code.

21               “(B) Review, at least annually, areas of in-  
22               telligent transportation systems research being  
23               considered for funding by the Department, to  
24               determine—

1 “(i) whether these activities are likely  
2 to advance either the state-of-the-practice  
3 or state-of-the-art in intelligent transpor-  
4 tation systems;

5 “(ii) whether the intelligent transpor-  
6 tation system technologies are likely to be  
7 deployed by users, and, if not, to determine  
8 the barriers to deployment; and

9 “(iii) the appropriate roles for govern-  
10 ment and the private sector in investing in  
11 the research and technologies being consid-  
12 ered.

13 “(4) REPORT.—Not later than February 1 of  
14 each year after the date of enactment of the Surface  
15 Transportation Research and Development Act of  
16 2005, the Secretary shall transmit to the Committee  
17 on Science and the Committee on Transportation  
18 and Infrastructure of the House of Representatives,  
19 and to the Committee on Environment and Public  
20 Works of the Senate, a report including—

21 “(A) all recommendations made by the Ad-  
22 visory Committee during the preceding calendar  
23 year;

24 “(B) an explanation of how the Secretary  
25 has implemented those recommendations; and

1           “(C) for recommendations not imple-  
2           mented, the reasons for rejecting the rec-  
3           ommendations.

4           “(5) APPLICABILITY OF FEDERAL ADVISORY  
5           COMMITTEE ACT.—The Advisory Committee shall be  
6           subject to the Federal Advisory Committee Act (5  
7           U.S.C. App.).

8           “(i) EVALUATIONS.—

9           “(1) GUIDELINES AND REQUIREMENTS.—

10           “(A) IN GENERAL.—The Secretary shall  
11           issue guidelines and requirements for the eval-  
12           uation of operational tests and model deploy-  
13           ment projects carried out under this subtitle.

14           “(B) CONTENT.—Such evaluations shall  
15           include specific, quantitative measures to deter-  
16           mine whether a technology is meeting its in-  
17           tended goal. To the maximum extent prac-  
18           ticable, these measures shall evaluate the out-  
19           come of the technology (such as accidents  
20           avoided or decreased travel times or travel time  
21           variability).

22           “(C) OBJECTIVITY AND INDEPENDENCE.—  
23           The guidelines and requirements issued under  
24           subparagraph (A) shall include provisions to en-  
25           sure the objectivity and independence of the



1 evaluator so as to avoid any real or apparent  
2 conflict of interest or potential influence on the  
3 outcome by parties to any such test or deploy-  
4 ment project or by any other formal evaluation  
5 carried out under this subtitle.

6 “(D) FUNDING.—The guidelines and re-  
7 quirements issued under subparagraph (A) shall  
8 establish evaluation funding levels, based on the  
9 size and scope of each test or project, that en-  
10 sure adequate evaluation of the results of the  
11 test or project.

12 “(E) DISSEMINATION.—The Secretary  
13 shall make readily available through the Inter-  
14 net all information collected through evalua-  
15 tions carried out under this subsection.

16 “(2) SPECIAL RULE.—Any survey, question-  
17 naire, or interview that the Secretary considers nec-  
18 essary to carry out the evaluation of any test, de-  
19 ployment project, or program assessment activity  
20 under this subtitle shall not be subject to chapter 35  
21 of title 44, United States Code.

22 **“SEC. 5204. USING INFORMATION FROM INTELLIGENT**  
23 **TRANSPORTATION SYSTEMS.**

24 “(a) REPORT.—The Secretary shall prepare a report  
25 assessing the value of current and anticipated data col-

1 lected from intelligent transportation system technologies  
2 to determine whether and how that data should be used  
3 for real-time traffic management, planning, performance  
4 monitoring, program assessment, and policy applications.

5 “(b) ASSESSMENT.—In preparing the report under  
6 subsection (a), the Secretary should assess—

7 “(1) the extent to which data should be central-  
8 ized nationally in support of national planning and  
9 goals, what information should be aggregated re-  
10 gionally, and what information should be kept lo-  
11 cally;

12 “(2) the need for data standards;

13 “(3) public and private data sources other than  
14 intelligent transportation system data sources (such  
15 as roadway characteristics inventories and incident  
16 information) that, combined with intelligent trans-  
17 portation system data, would enhance the utility of  
18 intelligent transportation system data to decision-  
19 makers, and how these data sources can be merged;  
20 and

21 “(4) how to make data accessible to users.

22 “(c) CONSULTATION.—In developing the strategy  
23 under this section, the Secretary shall consult with the Bu-  
24 reau of Transportation Statistics and the advisory com-  
25 mittee established under section 5203(h).

1       “(d) REPORT TO CONGRESS.—Not later than 2 years  
2 after the date of the enactment of this subsection, the Sec-  
3 retary shall transmit to the Committee on Science and the  
4 Committee on Transportation and Infrastructure of the  
5 House of Representatives, and to the Committee on Envi-  
6 ronment and Public Works of the Senate, the report devel-  
7 oped under this section.

8       **“SEC. 5205. NATIONAL ARCHITECTURE AND STANDARDS.**

9       “(a) IN GENERAL.—

10           “(1) DEVELOPMENT, IMPLEMENTATION, AND  
11 MAINTENANCE.—Consistent with section 12(d) of  
12 the National Technology Transfer and Advancement  
13 Act of 1995 (15 U.S.C. 272 note; 110 Stat. 783),  
14 the Secretary shall develop, implement, and maintain  
15 a national architecture and supporting standards  
16 and protocols to promote the widespread use and  
17 evaluation of intelligent transportation system tech-  
18 nology as a component of the surface transportation  
19 systems of the United States.

20           “(2) GOAL.—The goal of the national architec-  
21 ture and standards shall be to ensure, whenever it  
22 is appropriate, interoperability among, and efficiency  
23 of, intelligent transportation system technologies im-  
24 plemented throughout the United States.

1           “(3) USE OF STANDARDS DEVELOPMENT ORGA-  
2           NIZATIONS.—In carrying out this section, the Sec-  
3           retary may use the services of such standards devel-  
4           opment organizations as the Secretary determines to  
5           be appropriate.

6           “(4) STANDARD VALIDATION.—The Secretary  
7           shall ensure that new standards promulgated for in-  
8           telligent transportation system technologies that are  
9           funded by the Department are tested and validated,  
10          whenever it is appropriate, and shall ensure that the  
11          results of such testing and validation are made pub-  
12          licly available.

13          “(b) PROVISIONAL STANDARDS.—

14               “(1) IN GENERAL.—If the Secretary finds that  
15               the development or balloting of an intelligent trans-  
16               portation system standard jeopardizes the timely  
17               achievement of the objectives identified in subsection  
18               (a)(1) and (2), the Secretary may establish a provi-  
19               sional standard after consultation with affected par-  
20               ties, and using, to the extent practicable, the work  
21               product of appropriate standards development orga-  
22               nizations.

23               “(2) PERIOD OF EFFECTIVENESS.—A provi-  
24               sional standard established under paragraph (1)  
25               shall be published in the Federal Register and re-

1 main in effect until the appropriate standards devel-  
2 opment organization adopts and publishes a stand-  
3 ard.

4 “(c) CONFORMITY WITH NATIONAL ARCHITEC-  
5 TURE.—

6 “(1) IN GENERAL.—Except as provided in para-  
7 graphs (2) and (3), the Secretary shall ensure that  
8 intelligent transportation system projects carried out  
9 using funds made available from the Highway Trust  
10 Fund, including funds made available to deploy in-  
11 telligent transportation system technologies, conform  
12 to the national architecture, applicable standards or  
13 provisional standards, and protocols developed under  
14 subsection (a).

15 “(2) SECRETARY’S DISCRETION.—The Sec-  
16 retary may authorize exceptions to paragraph (1)  
17 for—

18 “(A) projects designed to achieve specific  
19 research and development objectives outlined in  
20 the National ITS Program Plan or the Surface  
21 Transportation Research and Development  
22 Strategic Plan developed under section 508 of  
23 title 23, United States Code; or

24 “(B) the upgrade or expansion of an intel-  
25 ligent transportation system in existence on the

1 date of enactment of the Transportation Equity  
 2 Act for the 21st Century, if the Secretary de-  
 3 termines that the upgrade or expansion—

4 “(i) would not adversely affect the  
 5 goals or purposes of this subtitle;

6 “(ii) is carried out before the end of  
 7 the useful life of such system; and

8 “(iii) is cost-effective as compared to  
 9 alternatives that would meet the con-  
 10 formity requirement of paragraph (1).

11 “(3) EXCEPTIONS.—Paragraph (1) shall not  
 12 apply to funds used for operation or maintenance of  
 13 an intelligent transportation system in existence on  
 14 the date of enactment of the Transportation Equity  
 15 Act for the 21st Century.

16 **“SEC. 5206. RESEARCH AND DEVELOPMENT.**

17 “(a) IN GENERAL.—The Secretary shall carry out a  
 18 comprehensive program of research, development, and  
 19 operational tests of intelligent vehicles and intelligent in-  
 20 frastructure systems, as well as research into barriers to  
 21 their deployment, and other similar activities that are nec-  
 22 essary to carry out this subtitle.

23 “(b) PRIORITY AREAS.—Under the program, the Sec-  
 24 retary shall give higher priority to funding projects that—

1           “(1) are aimed at reducing congestion and im-  
2           proving mobility and efficiency;

3           “(2) are aimed at improving safety;

4           “(3) are aimed at improving security by focus-  
5           ing on responding to security-related emergencies,  
6           and preventing such emergencies;

7           “(4) incorporate human factors research, in-  
8           cluding the science of the driving process;

9           “(5) develop methods to address nontechnical  
10          barriers to the deployment of intelligent transpor-  
11          tation system technologies, and the best ways to de-  
12          velop partnerships to successfully deploy intelligent  
13          transportation system technologies;

14          “(6) facilitate the integration of intelligent in-  
15          frastructure, vehicle, and control technologies;

16          “(7) incorporate research on the impact of envi-  
17          ronmental, weather, and natural conditions on intel-  
18          ligent transportation systems, including the effects  
19          of cold climates;

20          “(8) utilize interdisciplinary approaches to de-  
21          velop traffic management strategies and tools to ad-  
22          dress multiple impacts of congestion concurrently;

23          “(9) are aimed at improving the efficiency of  
24          goods movement, such as through real-time tracking  
25          and management; or

1           “(10) facilitate high-performance transportation  
2           systems, through methods such as congestion pric-  
3           ing, real-time facility management, rapid emergency  
4           response, and just-in-time transit.

5           “(c) OPERATIONAL TESTS.—Operational tests shall  
6           be used to evaluate promising technologies that have not  
7           yet been demonstrated. Operational tests conducted under  
8           this section shall be designed for the collection of data to  
9           permit objective evaluation of the results of the tests, deri-  
10          vation of cost-benefit information that is useful to others  
11          contemplating deployment of similar systems, and develop-  
12          ment and implementation of standards.

13          “(d) FEDERAL SHARE.—The Federal share of the  
14          cost of operational tests and demonstrations under sub-  
15          section (a) shall not exceed 80 percent.

16       **“SEC. 5207. USE OF FUNDS.**

17          “(a) CONGESTION REDUCTION.—At least  $\frac{1}{3}$  of funds  
18          made available under section 5206 for intelligent transpor-  
19          tation systems research and development shall be used to  
20          research, develop, and operationally test technologies  
21          whose primary purpose is to reduce congestion.

22          “(b) OUTREACH AND PUBLIC RELATIONS LIMITA-  
23          TION.—

24               “(1) IN GENERAL.—For each fiscal year, not  
25               more than \$5,000,000 of the funds made available



1 to carry out this subtitle shall be used for intelligent  
2 transportation system outreach, public relations, dis-  
3 plays, scholarships, tours, and brochures.

4 “(2) APPLICABILITY.—Paragraph (1) shall not  
5 apply to intelligent transportation system training or  
6 the publication or distribution of research findings,  
7 technical guidance, or similar documents.

8 “(c) INFRASTRUCTURE DEVELOPMENT.—Funds  
9 made available to carry out this subtitle for operational  
10 tests—

11 “(1) shall be used primarily for the development  
12 of intelligent transportation system infrastructure;  
13 and

14 “(2) to the maximum extent practicable, shall  
15 not be used for the construction of physical highway  
16 and transit infrastructure unless the construction is  
17 incidental and critically necessary to the implemen-  
18 tation of an intelligent transportation system  
19 project.

20 **“SEC. 5208. DEFINITIONS.**

21 “In this subtitle, the following definitions apply:

22 “(1) INTELLIGENT TRANSPORTATION INFRA-  
23 STRUCTURE.—The term ‘intelligent transportation  
24 infrastructure’ means fully integrated public sector

1 intelligent transportation system components, as de-  
2 fined by the Secretary.

3 “(2) INTELLIGENT TRANSPORTATION SYS-  
4 TEM.—The term ‘intelligent transportation system’  
5 means electronics, communications, or information  
6 processing used singly or in combination to improve  
7 the efficiency or safety of a surface transportation  
8 system.

9 “(3) NATIONAL ARCHITECTURE.—The term  
10 ‘national architecture’ means the common frame-  
11 work for interoperability adopted by the Secretary  
12 that defines—

13 “(A) the functions associated with intel-  
14 ligent transportation system user services;

15 “(B) the physical entities or subsystems  
16 within which the functions reside;

17 “(C) the data interfaces and information  
18 flows between physical subsystems; and

19 “(D) the communications requirements as-  
20 sociated with the information flows.

21 “(4) STANDARD.—The term ‘standard’ means a  
22 document that—

23 “(A) contains technical specifications or  
24 other precise criteria for intelligent transpor-  
25 tation systems that are to be used consistently

1 as rules, guidelines, or definitions of character-  
 2 isties so as to ensure that materials, products,  
 3 processes, and services are fit for their pur-  
 4 poses; and

5 “(B) may support the national architecture  
 6 and promote—

7 “(i) the widespread use and adoption  
 8 of intelligent transportation system tech-  
 9 nology as a component of the surface  
 10 transportation systems of the United  
 11 States; and

12 “(ii) interoperability among intelligent  
 13 transportation system technologies imple-  
 14 mented throughout the States.

15 “(5) STATE.—The term ‘State’ has the mean-  
 16 ing given the term under section 101 of title 23,  
 17 United States Code.”.

18 (b) TABLE OF CONTENTS AMENDMENT.—The items  
 19 relating to subtitle C of title V in the table of contents  
 20 of the Transportation Equity Act for the 21st Century are  
 21 amended to read as follows:

“Subtitle C—Intelligent Transportation Systems

“Sec. 5201. Short title.

“Sec. 5202. Goals and purposes.

“Sec. 5203. General authorities and requirements.

“Sec. 5204. Using information from intelligent transportation systems.

“Sec. 5205. National architecture and standards.

“Sec. 5206. Research and development.

“Sec. 5207. Use of funds.

“Sec. 5208. Definitions.”.

1       **TITLE II—MISCELLANEOUS**

2   **SEC. 201. AUTHORIZATION OF APPROPRIATIONS.**

3       (a) TRANSIT RESEARCH AND DEVELOPMENT.—

4   There are authorized to be appropriated from the High-  
5   way Trust Fund to the Secretary of Transportation to  
6   carry out sections 5312, 5313, 5314, 5315, and 5322 of  
7   title 49, United States Code, and section 202 of this Act,  
8   relating to research and development, such sums as may  
9   be necessary for each of the fiscal years 2005 through  
10  2010.

11       (b) HIGHWAY SAFETY RESEARCH AND DEVELOP-  
12  MENT.—There are authorized to be appropriated from the  
13  Highway Trust Fund to the Secretary of Transportation  
14  to carry out section 403 of title 23, United States Code,  
15  relating to research and development, such sums as may  
16  be necessary for each of the fiscal years 2005 through  
17  2010.

18       (c) MOTOR CARRIER RESEARCH AND DEVELOP-  
19  MENT.—There are authorized to be appropriated from the  
20  Highway Trust Fund to the Secretary of Transportation  
21  to carry out section 31108 of title 49, United States Code,  
22  relating to research and development, such sums as may  
23  be necessary for each of the fiscal years 2005 through  
24  2010.

1 **SEC. 202. INNOVATIVE PRACTICES AND TECHNOLOGIES**  
2 **DEMONSTRATION AND DEPLOYMENT PRO-**  
3 **GRAM.**

4 (a) **ESTABLISHMENT.**—The Secretary of Transpor-  
5 tation shall establish an Innovative Practices and Tech-  
6 nologies Demonstration and Deployment Program.

7 (b) **PROGRAM GOALS.**—The goals of the program are  
8 to—

9 (1) demonstrate promising new transit practices  
10 and technologies, including new business models for  
11 managing and operating transit systems, that may  
12 increase ridership, increase accessibility, reduce cost,  
13 improve customer satisfaction, and improve safety;

14 (2) evaluate, refine, and document the perform-  
15 ance, benefits, and costs of innovative transit prac-  
16 tices and technologies; and

17 (3) effectively disseminate information to accel-  
18 erate deployment of innovative transit practices and  
19 technologies.

20 (c) **GRANTS, COOPERATIVE AGREEMENTS, AND CON-**  
21 **TRACTS.**—The Secretary may make grants to, or enter  
22 into cooperative agreements or contracts with, transit  
23 agencies, States, other Federal agencies, universities and  
24 colleges, private sector entities, and nonprofit organiza-  
25 tions to pay the Federal share of the cost of demonstration

1 and deployment projects concerning innovative practices  
2 and technologies.

3 (d) APPLICATIONS.—To receive a grant, cooperative  
4 agreement, or contract under this section, an entity de-  
5 scribed in subsection (c) shall submit an application to the  
6 Secretary. The application shall be in such form and con-  
7 tain such information as the Secretary may require. The  
8 Secretary shall select and approve the applications  
9 through an open competition based on the following cri-  
10 teria:

11 (1) Whether the project meets the goals of the  
12 program.

13 (2) Peer review of the proposal.

14 (3) The likelihood that the project will result in  
15 more widespread deployment of the practice or tech-  
16 nology being proposed.

17 (4) Preference shall be given to an application  
18 that represents a public-private partnership.

19 (e) TECHNOLOGY AND INFORMATION TRANSFER.—  
20 The Secretary shall ensure that information about innova-  
21 tive practices and technologies supported under this sec-  
22 tion is made available to transit agencies, State and local  
23 transportation departments, and other interested parties.  
24 Information disseminated under this subsection shall in-

1 clude both the costs and benefits of deploying an innova-  
 2 tive practice or technology, and shall document—

3 (1) best practices for adopting successful prac-  
 4 tices or technologies; and

5 (2) the transferability of these practices and  
 6 technologies.

7 (f) FEDERAL SHARE.—The Federal share of the cost  
 8 of a project under this section shall be determined by the  
 9 Secretary.

10 **SEC. 203. NATIONAL TRANSIT INSTITUTE.**

11 Section 5315 of title 49, United States Code, is  
 12 amended—

13 (1) in subsection (a)—

14 (A) by striking “public mass transpor-  
 15 tation” and inserting “public transportation”;

16 (B) by striking “mass” after “Govern-  
 17 ment-aid” and inserting “public”; and

18 (C) in paragraphs (1), (6), (7), and (10)  
 19 by striking “mass” each place it appears before  
 20 “transportation” and inserting “public”; and

21 (2) in subsection (d) by striking “mass” each  
 22 place it appears.

23 **SEC. 204. HUMAN RESOURCE PROGRAMS.**

24 (a) IN GENERAL.—Section 5322 of title 49, United  
 25 States Code, is amended—

1           (1) by inserting “(a) In General.—” before the  
2           beginning of the first sentence of the section; and

3           (2) by adding the following at the end:

4           “(b) GRANTS TO HIGHER LEARNING INSTITU-  
5 TIONS.—

6           “(1) The Secretary (or the Secretary of Hous-  
7           ing and Urban Development when required by sec-  
8           tion 5334(i) of this title) may make grants to non-  
9           profit institutions of higher learning—

10           “(A) to conduct competent research and  
11           development and investigations into the theo-  
12           retical or practical problems of urban transpor-  
13           tation; and

14           “(B) to train individuals to conduct fur-  
15           ther research and development or obtain em-  
16           ployment in an organization that plans, builds,  
17           operates, or manages an urban transportation  
18           system.

19           “(2) Research and investigations under this  
20           subsection include—

21           “(A) the design and use of urban public  
22           transportation systems and urban roads and  
23           highways;

24           “(B) the interrelationship between various  
25           modes of urban and interurban transportation;



1                   “(C) the role of transportation planning in  
2                   overall urban planning;

3                   “(D) public preferences in transportation;

4                   “(E) the economic allocation of transpor-  
5                   tation resources; and

6                   “(F) the legal, financial, engineering, and  
7                   esthetic aspects of urban transportation.

8                   “(3) When making a grant under this sub-  
9                   section, the Secretary shall give preference to an in-  
10                  stitution that brings together knowledge and exper-  
11                  tise in the various social science and technical dis-  
12                  ciplines related to urban transportation problems.

13                  “(c) FELLOWSHIPS.—

14                  “(1) The Secretary may make grants to States,  
15                  local governmental authorities, and operators of pub-  
16                  lic transportation systems to provide fellowships to  
17                  train personnel employed in managerial, technical,  
18                  and professional positions in the mass transportation  
19                  field.

20                  “(2) A fellowship under this subsection may be  
21                  for not more than one year of training in an institu-  
22                  tion that offers a program applicable to the public  
23                  transportation industry. The recipient of the grant  
24                  shall select an individual on the basis of dem-  
25                  onstrated ability and for the contribution the indi-

vidual reasonably can be expected to make to an efficient public transportation operation. A grant for a fellowship may not be more than the lesser of \$65,000 or 75 percent of—

“(A) tuition and other charges to the fellowship recipient;

“(B) additional costs incurred by the training institution and billed to the grant recipient; and

“(C) the regular salary of the fellowship recipient for the period of the fellowship to the extent the salary is actually paid or reimbursed by the grant recipient.

“(d) OTHER GRANTS.—The Secretary may make grants to State and local governmental authorities for projects that will use innovative techniques and methods in managing and providing public transportation.”.

**SEC. 205. HIGHWAY SAFETY RESEARCH AND DEVELOPMENT.**

Section 403(a) (Authority of the Secretary) of title 23, United States Code, is amended by adding the following paragraphs at the end:

“(4) EMERGENCY MEDICAL SERVICES.—In addition to the authority provided under this subsection, the Secretary is authorized to use funds ap-

1       appropriated to carry out this section to enhance co-  
2       ordination among Federal agencies involved with  
3       State, local, tribal, and community-based emergency  
4       medical services. In exercising this authority, the  
5       Secretary may coordinate with State and local gov-  
6       ernments, the Bureau of Indian Affairs on behalf of  
7       Indian tribes, private industry, and other interested  
8       parties; collect and exchange emergency medical  
9       services data and information; examine emergency  
10      medical services needs, best practices, and related  
11      technology; and develop emergency medical services  
12      standards and guidelines, and plans for the assess-  
13      ment of emergency medical services systems.

14           “(5) INTERNATIONAL COOPERATION.—In addi-  
15      tion to the authority provided under this subsection,  
16      the Secretary is authorized to use funds appro-  
17      priated to carry out this section to participate and  
18      cooperate in international activities to enhance high-  
19      way safety by such means as exchanging safety in-  
20      formation; conducting safety research and develop-  
21      ment; and examining safety needs, best practices,  
22      and new technology.

23           “(6) NATIONAL MOTOR VEHICLE CRASH CAUSA-  
24      TION SURVEY.—In addition to the authority pro-  
25      vided under this subsection, the Secretary is author-

1        ized to use funds appropriated to carry out this sec-  
2        tion to develop and conduct a nationally representa-  
3        tive survey to collect on-scene motor vehicle crash  
4        causation data.”.

5    **SEC. 206. MOTOR CARRIER RESEARCH AND DEVELOPMENT**  
6                    **PROGRAM.**

7        (a) IN GENERAL.—Title 49, United States Code, is  
8        amended by repealing section 31108 and inserting the fol-  
9        lowing new section, to read as follows:

10    **“§ 31108. Motor carrier research and development**  
11                    **program**

12        “(a) RESEARCH, DEVELOPMENT, AND TECHNOLOGY  
13        TRANSFER ACTIVITIES.—

14                “(1) The Secretary of Transportation shall es-  
15        tablish and carry out a motor carrier research and  
16        development program. The Secretary may carry out  
17        research, development, technology, and technology  
18        transfer activities with respect to—

19                    “(A) the causes of accidents, injuries and  
20        fatalities involving commercial motor vehicles;  
21        and

22                    “(B) means of reducing the number and  
23        severity of accidents, injuries and fatalities in-  
24        volving commercial motor vehicles.

1           “(2) The Secretary may test, develop, or assist  
2           in testing and developing any material, invention,  
3           patented article, or process related to the research  
4           and development program.

5           “(3) The Secretary may use the funds appro-  
6           priated to carry out this section for training or edu-  
7           cation of commercial motor vehicle safety personnel,  
8           including, but not limited to, training in accident re-  
9           construction and detection of controlled substances  
10          or other contraband, and stolen cargo or vehicles.

11          “(4) The Secretary may carry out this sec-  
12          tion—

13                 “(A) independently;

14                 “(B) in cooperation with other Federal de-  
15                 partments, agencies, and instrumentalities and  
16                 federally funded research and development cen-  
17                 ters; or

18                 “(C) by making grants to, or entering into  
19                 contracts or cooperative agreements with, any  
20                 federally funded research and development cen-  
21                 ter, State agency, authority, association, insti-  
22                 tution, for-profit or non-profit corporation, or-  
23                 ganization, foreign country, or person.

24          “(5) The Secretary shall use funds made avail-  
25          able to carry out this section to develop, administer,

1       communicate, and promote the use of products of re-  
2       search, technology, and technology transfer pro-  
3       grams under this section.

4       “(b) COLLABORATIVE RESEARCH AND DEVELOP-  
5       MENT.—

6               “(1) To advance innovative solutions to prob-  
7       lems involving commercial motor vehicle and motor  
8       carrier safety, security, and efficiency, and to stimu-  
9       late the deployment of emerging technology, the Sec-  
10      retary may carry out, on a cost-shared basis, col-  
11      laborative research and development with—

12               “(A) non-Federal entities, including State  
13       and local governments, foreign governments,  
14       colleges and universities, corporations, institu-  
15       tions, partnerships, and sole proprietorships  
16       that are incorporated or established under the  
17       laws of any State; and

18               “(B) federally funded research and devel-  
19       opment centers.

20               “(2) In carrying out this subsection, the Sec-  
21       retary may enter into cooperative research and de-  
22       velopment agreements (as defined in section 12 of  
23       the Stevenson-Wydler Technology Innovation Act of  
24       1980 (15 U.S.C. 3710a)).

1           “(3) (A) The Federal share of the cost of activi-  
2       ties carried out under a cooperative research and de-  
3       velopment agreement entered into under this sub-  
4       section shall not exceed 50 percent, except that if  
5       there is substantial public interest or benefit, the  
6       Secretary may approve a greater Federal share.

7           “(B) All costs directly incurred by the non-Fed-  
8       eral partners, including personnel, travel, and hard-  
9       ware or software development costs, shall be credited  
10      toward the non-Federal share of the cost of the ac-  
11      tivities described in subparagraph (A).

12          “(4) The research, development, or use of a  
13      technology under a cooperative research and develop-  
14      ment agreement entered into under this subsection,  
15      including the terms under which the technology may  
16      be licensed and the resulting royalties may be dis-  
17      tributed, shall be subject to the Stevenson-Wydler  
18      Technology Innovation Act of 1980 (15 U.S.C. 3701  
19      et seq.).

20          “(5) Section 3705 of title 41, United States  
21      Code, shall not apply to a contract or agreement en-  
22      tered into under this section.”.

23      (b) CONFORMING AMENDMENT.—The table of sec-  
24      tions at the beginning of chapter 311 of title 49, United

1 States Code, is amended by revising the item relating to  
2 section 31108 to read as follows:

“31108. Motor carrier research and development program.”.

3 **SEC. 207. TRANSPORTATION, ENERGY, AND ENVIRONMENT.**

4 (a) IN GENERAL.—As part of the National Climate  
5 Change Technology Initiative and the Climate Change Re-  
6 search Initiative, the Secretary shall establish and carry  
7 out a multimodal energy and climate change program to  
8 study the relationship of transportation, energy, and cli-  
9 mate change.

10 (b) CONTENTS.—The program to be carried out  
11 under this section shall include, but not be limited to, re-  
12 search and development designed to—

13 (1) identify, develop and evaluate strategies to  
14 improve energy efficiency and reduce greenhouse gas  
15 emissions from transportation sources; and

16 (2) identify and evaluate the potential effects of  
17 climate changes on the Nation’s transportation sys-  
18 tems, and strategies to address these effects.

19 (c) PROJECT SELECTION.—Activities to be under-  
20 taken in this program will be determined by an internal  
21 steering committee established by the Secretary of Trans-  
22 portation. This intermodal committee shall include rep-  
23 resentatives from the Office of the Secretary and oper-  
24 ating administrations within the Department of Transpor-  
25 tation as designated by the Secretary.



1 (d) GRANTS, COOPERATIVE AGREEMENTS AND CON-  
 2 TRACTS.—The Secretary may carry out this program inde-  
 3 pendently or by making grants to, or entering into con-  
 4 tracts and cooperative agreements with, a Federal agency,  
 5 State agency, local agency, authority, association, non-  
 6 profit or for-profit corporation, or institution of higher  
 7 education.

8 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
 9 are authorized to be appropriated to carry out this section,  
 10 from the Highway Trust Fund and the Airport and Air-  
 11 way Trust Fund, such sums as may be necessary for each  
 12 of fiscal years 2005 through 2010.

13 **SEC. 208. NATIONAL COOPERATIVE FREIGHT TRANSPOR-**  
 14 **TATION RESEARCH AND DEVELOPMENT PRO-**  
 15 **GRAM.**

16 (a) IN GENERAL.—Chapter 5 of title 23, United  
 17 States Code, is amended by adding at the end the fol-  
 18 lowing:

19 **“§ 510. National cooperative freight transportation**  
 20 **research and development program**

21 **“(a) ESTABLISHMENT.—**The Secretary shall estab-  
 22 lish and support a national cooperative freight transpor-  
 23 tation research and development program. The program  
 24 shall focus on all forms of freight transportation, including  
 25 trucking and rail.

1       “(b) AGREEMENT.—The Secretary shall enter into an  
2 arrangement with the National Research Council to sup-  
3 port and carry out administrative and management activi-  
4 ties relating to the governance of the national cooperative  
5 freight transportation research and development program.

6       “(c) ADVISORY COMMITTEE.—The National Re-  
7 search Council shall select an advisory committee con-  
8 sisting of a representative cross-section of freight stake-  
9 holders, including the Department of Transportation,  
10 other Federal agencies, State transportation departments,  
11 local governments, the American Association of State  
12 Highway and Transportation Officials and other nonprofit  
13 entities (including environmental groups), academia, and  
14 the private sector.

15       “(d) GOVERNANCE.—The national cooperative  
16 freight transportation research and development program  
17 established under this section shall include the following  
18 administrative and management elements:

19               “(1) NATIONAL RESEARCH AND DEVELOPMENT  
20 AGENDA.—The advisory committee, in consultation  
21 with stakeholders, shall recommend a national re-  
22 search and development agenda for the national co-  
23 operative freight transportation research and devel-  
24 opment program. The national research and develop-

1       ment agenda shall include a multi-year strategic  
2       plan.

3               “(2) STAKEHOLDER INVOLVEMENT.—Stake-  
4       holders may—

5                       “(A) submit research and development pro-  
6       posals to the advisory committee;

7                       “(B) participate in merit reviews of re-  
8       search and development proposals and peer re-  
9       views of research and development products;  
10       and

11                      “(C) receive research and development re-  
12       sults.

13               “(3) OPEN COMPETITION AND PEER REVIEW OF  
14       RESEARCH AND DEVELOPMENT PROPOSALS.—The  
15       National Research Council shall award research and  
16       development contracts and grants through open  
17       competition and peer review conducted on a regular  
18       basis.

19               “(4) EVALUATION OF RESEARCH.—

20                      “(A) PEER REVIEW.—Research and devel-  
21       opment contracts and grants shall allow peer  
22       review of the research and development results.

23                      “(B) PROGRAMMATIC EVALUATIONS.—The  
24       National Research Council may conduct peri-

1           odie programmatic evaluations on a regular  
2           basis.

3           “(5) DISSEMINATION OF RESEARCH FIND-  
4           INGS.—The National Research Council shall dissemi-  
5           nate research and development findings to research-  
6           ers, practitioners, and decisionmakers.

7           “(e) CONTENTS.—The national research and develop-  
8           ment agenda for the national cooperative freight transpor-  
9           tation research and development program required under  
10          subsection (d)(1) may include research and development  
11          in the following areas:

12           “(1) Techniques for estimating and quantifying  
13           public benefits derived from freight transportation  
14           projects.

15           “(2) Alternative approaches to calculating the  
16           contribution of truck traffic to congestion on specific  
17           highway segments.

18           “(3) The feasibility of freight villages as a  
19           means of consolidating origins and destinations for  
20           freight movement.

21           “(4) Methods for incorporating estimates of  
22           international trade into landside transportation plan-  
23           ning.

1           “(5) The use of technology applications to in-  
2       crease capacity of highway lanes dedicated to truck-  
3       only traffic.

4           “(6) Development of physical and policy alter-  
5       natives for separating car and truck traffic.

6           “(7) Ways to synchronize infrastructure im-  
7       provements with freight transportation demand.

8           “(8) Additional priorities to identify and ad-  
9       dress the emerging and future research and develop-  
10      ment needs related to freight transportation.

11      “(f) FUNDING.—

12           “(1) FEDERAL SHARE.—The Federal share of  
13      the cost of an activity carried out using such funds  
14      shall be up to 100 percent, and such funds shall re-  
15      main available until expended.

16           “(2) USE OF NON-FEDERAL FUNDS.—In addi-  
17      tion to using funds authorized for this section, the  
18      National Research Council may seek and accept ad-  
19      ditional funding sources from public and private en-  
20      tities capable of accepting funding from the United  
21      States Department of Transportation (Federal  
22      Highway Administration, Federal Transit Adminis-  
23      tration, Federal Railroad Administration, Research  
24      and Special Programs Administration, and the Na-  
25      tional Highway Traffic Safety Administration),

1 states, local governments, nonprofit foundations, and  
 2 the private sector.”.

3 (b) CONFORMING AMENDMENT.—The analysis for  
 4 chapter 5 of title 23, United States Code, is amended by  
 5 adding at the end the following new item:

“510. National cooperative freight transportation research and development pro-  
 gram.”.

6 **SEC. 209. NEXT GENERATION NATIONAL TRANSPORTATION**  
 7 **POLICY STUDY COMMISSION.**

8 (a) ESTABLISHMENT OF COMMISSION.—(1) The  
 9 President shall established a Commission to be known as  
 10 the Next Generation National Transportation Policy  
 11 Study Commission, in this section referred to as the  
 12 “Commission”.

13 (2) The Commission shall make a full and complete  
 14 investigation and study of the transportation needs and  
 15 of the resources, requirements, and policies of the United  
 16 States to meet such expected needs. It shall take into con-  
 17 sideration all reports on national transportation policy  
 18 which have been submitted to Congress in the last decade,  
 19 including all reports referenced in the Intermodal Surface  
 20 Transportation Efficiency Act of 1991 and the Transpor-  
 21 tation Equity Act for the 21st Century. It shall also take  
 22 into consideration the changes in global trade and its im-  
 23 pact on the Nation’s economy. It shall evaluate the relative  
 24 merits of all modes of transportation in meeting our Na-

1 tion's transportation needs. It shall take into account the  
2 link between transportation and the natural environment.  
3 Based on such study, it shall recommend changes to exist-  
4 ing policies and any new policies that are most likely to  
5 ensure that adequate multimodal transportation systems  
6 are in place which will meet the needs for a safe and effi-  
7 cient movement of people and goods and also support and  
8 grow the national economy.

9 (b) MEMBERSHIP.—The Commission shall be com-  
10 prised of 16 members appointed by the President from  
11 among individuals who are knowledgeable in transpor-  
12 tation activities, including individuals representing State  
13 and local governments, metropolitan planning organiza-  
14 tions, transportation-related industries, academic and  
15 technical institutions, and public interest organizations in-  
16 volved with scientific, regulatory, economic, and environ-  
17 mental transportation activities. The membership of the  
18 Commission shall be balanced geographically to the extent  
19 consistent with maintaining the highest level of expertise  
20 on the Commission. Members shall be appointed for the  
21 life of the Commission as follows:

22 (1) 4 shall be appointed from a list of 8 individ-  
23 uals who shall be recommended by the majority lead-  
24 er of the Senate in consultation with the Chairman  
25 of the Committee on Environment and Public

1 Works, and the Chairman of the Committee on  
2 Commerce, Science and Transportation, and the  
3 Chairman of the Committee on Banking, Housing  
4 and Urban Affairs of the Senate.

5 (2) 4 shall be appointed from a list of 8 individ-  
6 uals who shall be recommended by the minority lead-  
7 er of the Senate in consultation with the ranking  
8 member of the Committee on Environment and Pub-  
9 lic Works, the ranking member of the Committee on  
10 Commerce, Science and Transportation, and the  
11 ranking member of the Committee on Banking,  
12 Housing and Urban Affairs of the Senate.

13 (3) 4 shall be appointed from a list of 8 individ-  
14 uals who shall be recommended by the Speaker of  
15 the House of Representatives in consultation with  
16 the Chairman of the Committee on Transportation  
17 and Infrastructure, the Chairman of the Committee  
18 on Energy and Commerce, and the Chairman of the  
19 Committee on Science of the House of Representa-  
20 tives.

21 (4) 4 shall be appointed from a list of 8 individ-  
22 uals who shall be recommended by the minority lead-  
23 er of the House of Representatives in consultation  
24 with the ranking member of the Committee on  
25 Transportation and Infrastructure, the ranking



1 member of the Committee on Energy and Com-  
2 merce, and the ranking member of the Committee  
3 on Science of the House of Representatives.

4 (5) Any vacancy which may occur on the Com-  
5 mission shall not affect its powers or functions but  
6 shall be filled in the same manner in which the origi-  
7 nal appointment was made.

8 (c) FINAL REPORT.—The Commission shall not later  
9 than December 31, 2007, submit to the President and  
10 Congress its final report including its findings and rec-  
11 ommendations. The Commission shall cease to exist six  
12 months after submission of such report. All records and  
13 papers of the Commission shall thereupon be delivered to  
14 the Archivist of the United States for deposit in the Ar-  
15 chives of the United States.

16 (d) FINDINGS AND RECOMMENDATIONS.—The final  
17 report shall include the Commission's findings and rec-  
18 ommendations with respect to the following:

19 (1) The Nation's transportation needs, both na-  
20 tional and regional, through the year 2025.

21 (2) The ability of our current transportation  
22 systems to meet the projected needs.

23 (3) The proper mix of transportation modes  
24 and necessary linkages between modes to meet an-  
25 ticipated needs.

1           (4) Necessary measures and policies to ensure  
2           enhancement and protection of the natural environ-  
3           ment in transportation decisionmaking.

4           (5) Short-term, medium-term, and long-term  
5           research, development, and deployment to meet ex-  
6           pected needs.

7           (6) The roles of the public and private sectors  
8           relative to each mode and the balance between public  
9           and private investment.

10          (7) The existing policies and programs of the  
11          Federal Government which affect the development of  
12          our national transportation system.

13          (8) The new policies required to develop a bal-  
14          anced national transportation system which meets  
15          projected needs, accommodates international trade  
16          and supports the national economy.

17          (9) The adequacy of existing methods to fi-  
18          nance transportation and alternative new methods of  
19          financing.

20          (e) SPECIFIC FACTORS TO CONSIDER.—In developing  
21          its findings and recommendations, the Commission shall  
22          address the following specific factors:

23                (1) The role of transportation as a critical link  
24                to the global economy and trade.

1           (2) A balance between the transportation of  
2 people and goods.

3           (3) Improving operations and management of  
4 the transportation system to improve efficiency, in-  
5 cluding asset and information management.

6           (4) The need to address aging infrastructure.

7           (5) The need to address the enhancement and  
8 protection of the natural environment.

9           (6) The need to address congestion in all  
10 modes.

11          (7) The need to improve environmental deci-  
12 sionmaking.

13          (8) A balance between the demand for transpor-  
14 tation reliability with new threats to security.

15          (9) Ways to eliminate barriers to transportation  
16 investment created by the current modal structure of  
17 transportation funding.

18          (10) Existing barriers to private investment in  
19 transportation facilities including tax inequities be-  
20 tween modes.

21          (11) The adequacy of the Federal transpor-  
22 tation trust funds to finance future transportation  
23 needs.

24          (12) Appropriate measures of transportation  
25 need.

1           (13) The adequacy of integration among Fed-  
2           eral programs affecting transportation.

3           (14) The relationship between land use and  
4           transportation infrastructure investment.

5           (15) The role that transportation plays in pro-  
6           moting economic growth, improving the environment  
7           and sustaining the quality of life.

8           (f) RECOMMENDATIONS ON THE ROLES OF GOVERN-  
9           MENT.—The Commission shall also make recommenda-  
10          tions on the roles of the Federal and State governments  
11          in—

12           (1) environmental review of transportation  
13          projects;

14           (2) the provision of intercity passenger rail  
15          services;

16           (3) financing transportation at international  
17          border crossings;

18           (4) facilitating international goods movement  
19          to, from and within the United States;

20           (5) ensuring consistency in data and commu-  
21          nications links for and between all modes;

22           (6) financing for each mode of transportation;  
23          and

1           (7) effectively using transportation networks to  
2       enhance the quality of life, protect natural resources  
3       and promote sustainable economic growth.

4       (g) PARTICIPATION IN COMMISSION ACTIVITIES.—

5           (1) PARTICIPATION OF FEDERAL AGENCIES.—

6       The Chairman of the Commission shall request the  
7       head of each Federal department or agency with an  
8       interest in or a responsibility for national transpor-  
9       tation policy to appoint a liaison who shall work  
10      closely with the Committee and its staff. Such de-  
11      partments and agencies shall include, but not be lim-  
12      ited to, the Department of Transportation, and each  
13      of its modal administrations, Office of Management  
14      and Budget, Department of Energy, Department of  
15      Homeland Security, Environmental Protection Agen-  
16      cy, Department of Health and Human Services, De-  
17      partment of Commerce, Department of the Treas-  
18      ury, Department of Defense, Department of Agri-  
19      culture, National Transportation Safety Board, Sur-  
20      face Transportation Board, and Army Corps of En-  
21      gineers.

22           (2) ADVICE FROM PUBLIC AND PRIVATE ORGA-  
23      NIZATIONS.—In carrying out its duties, the Commis-  
24      sion shall seek the advice of various groups inter-  
25      ested in national transportation policy including

1 State and local governments, public and private or-  
2 ganizations in the fields of transportation and safe-  
3 ty, business, education, environment and labor, and  
4 the public.

5 (h) HEARINGS.—The Commission or, on the author-  
6 ization of the Commission, any Committee of two or more  
7 members may, for the purpose of carrying out the provi-  
8 sions of this section, hold such hearings at such times and  
9 places as the Commission or such authorized committee  
10 may deem advisable.

11 (i) COMPENSATION.—Members of Congress or other  
12 governmental employees shall serve without compensation,  
13 but shall be reimbursed for travel, per diem in accordance  
14 of the rules of the House of Representatives and Senate,  
15 accordingly, or subsistence and other necessary expenses  
16 incurred in the performance of the duties vested in the  
17 Commission.

18 (j) COMMISSION STAFF.—The Commission is author-  
19 ized to appoint and fix the compensation of a staff director  
20 and such additional personnel as may be necessary to en-  
21 able it to carry out its functions.

22 (k) CONTRACTS.—The Commission is authorized to  
23 enter into contracts or agreements for studies and surveys  
24 with public and private organizations and, if necessary,  
25 to transfer funds to Federal agencies from sums appro-

1 priated pursuant to this section to carry out such of its  
 2 duties as the Commission determines can best be carried  
 3 out in the that manner.

4 (l) AUTHORIZATION OF APPROPRIATIONS.—(1)

5 There are authorized to be appropriated from the High-  
 6 way Trust Fund to carry out this section such sums as  
 7 may be necessary for each of fiscal years 2005 and 2006.

8 (2) Funds authorized by this subsection shall remain  
 9 available until expended.

10 **SEC. 210. REAL-TIME SYSTEM MANAGEMENT INFORMATION**  
 11 **PROGRAM.**

12 (a) GOALS AND PURPOSES.—

13 (1) GOALS.—The goals of the real-time system  
 14 management information program are to provide the  
 15 nationwide capability to monitor, in real-time, the  
 16 traffic and travel conditions of our Nation's major  
 17 highways and to widely share that information to  
 18 improve the security of the surface transportation  
 19 system, address congestion problems, support im-  
 20 proved response to weather events, and facilitate na-  
 21 tional and regional traveler information.

22 (2) PURPOSES.—The purposes of the real-time  
 23 system management information program are to—

1           (A) establish a nationwide system of basic  
2           real-time information for managing and oper-  
3           ating our surface transportation system;

4           (B) identify longer range real-time high-  
5           way and transit monitoring needs and develop  
6           plans and strategies for meeting those needs;  
7           and

8           (C) provide the capability and means to  
9           share that data with state and local govern-  
10          ments, and the traveling public.

11       (b) DATA EXCHANGE FORMATS.—Within one year of  
12       enactment of this Act, the Secretary shall establish data  
13       exchange formats to ensure that the data provided by  
14       highway and transit monitoring systems, including state-  
15       wide incident reporting systems can readily be exchanged  
16       across jurisdictional boundaries, facilitating nationwide  
17       availability of information.

18       (c) STATEWIDE INCIDENT REPORTING SYSTEM.—  
19       Within 2 years of enactment of this legislation, each State  
20       shall establish a statewide incident reporting system.

21       (d) REGIONAL INTELLIGENT TRANSPORTATION SYS-  
22       TEM ARCHITECTURE.—

23           (1) As State and local governments develop or  
24           update their regional ITS architectures, as specified  
25           in section 940.9 of title 23, Code of Federal Regula-



1        tions (Regional ITS Architecture), they shall explic-  
2        itly address their real-time highway and transit in-  
3        formation needs and the systems needed to meet  
4        those needs. This specific incorporation of informa-  
5        tion needs should address coverage, monitoring sys-  
6        tems, data fusion and archiving, and methods of ex-  
7        changing or sharing this information.

8            (2) States are encouraged to incorporate the  
9        data exchange formats developed by the Secretary to  
10       ensure that the data provided by highway and tran-  
11       sit monitoring systems can readily be exchanged  
12       across state and local governments, and with the  
13       traveling public.

14       (e) DEFINITION.—In this section, the term “state-  
15       wide incident reporting system” means a statewide system  
16       for facilitating the real-time electronic reporting of inci-  
17       dents to a central location for use in monitoring the event,  
18       providing accurate traveler information, and responding to  
19       the incident as appropriate.

20       (f) ELIGIBILITY.—Subject to approval by the Sec-  
21       retary, a State may obligate funds apportioned to it under  
22       sections 104(b)(1) and (3) and 505 of title 23, United  
23       States Code, for activities relating to the planning of real-  
24       time monitoring elements.

1 **SEC. 211. PLANNING CAPACITY BUILDING INITIATIVE.**

2 Section 104 of title 23, United States Code, is  
3 amended by inserting after subsection (l) the following:

4 “(m) PLANNING CAPACITY BUILDING INITIATIVE.—

5 “(1) IN GENERAL.—The Secretary shall estab-  
6 lish a planning capacity building initiative to support  
7 enhancements in transportation planning, in order  
8 to—

9 “(A) strengthen metropolitan and state-  
10 wide transportation planning under sections  
11 134 and 135, and under sections 5303 through  
12 5305 of title 49;

13 “(B) enhance tribal capacity to conduct  
14 joint transportation planning under chapter 2  
15 of this title; and

16 “(C) participate in the metropolitan and  
17 statewide transportation planning programs  
18 under chapter 52 of title 49.

19 “(2) PRIORITY.—The Secretary shall give pri-  
20 ority to planning practices and processes that sup-  
21 port homeland security planning, performance based  
22 planning, safety planning, operations planning,  
23 freight planning, and integration of environment and  
24 planning.

25 “(3) USE OF FUNDS.—Funds authorized for  
26 this program may be used for research, program de-

1       velopment, information collection and dissemination,  
2       and technical assistance. The Secretary may use  
3       these funds independently or make grants to, or  
4       enter into contracts and cooperative agreements  
5       with, a Federal agency, State agency, local agency,  
6       federally recognized Indian tribal government or  
7       tribal consortium, authority, association, nonprofit  
8       or for-profit corporation, or institution of higher  
9       education, to carry out the purposes of this sub-  
10      section.

11           “(4) FEDERAL SHARE.—The Federal share of  
12      the cost of an activity carried out using such funds  
13      shall be up to 100 percent, and such funds shall re-  
14      main available until expended.

15           “(5) ADMINISTRATION.—This initiative shall be  
16      administered by the Federal Highway Administra-  
17      tion in cooperation with the Federal Transit Admin-  
18      istration.

19           “(6) AUTHORIZATION OF APPROPRIATIONS.—  
20      There are authorized to be appropriated from the  
21      Highway Trust Fund such sums as may be nec-  
22      essary to carry out this section for each of fiscal  
23      years 2005 through 2010.”.

○